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Why I am a Pictorial Photographer

(Number One)

KENNETH DUDLEY SMITH

THE answer is rather simple: I am merely trying to express myself. It so happens that I am an attorney by profession, in the early thirties, and have always made photography my hobby. Nowadays a hobby is quite essential; as we grow older we should have something interesting to which to devote our leisure hours, and I believe that it is up to each of us to make as much of a success out of our hobby as we are capable of doing. It has been said, "The whole duty of man is to discover what is unique in himself, to bring it to the light, not to shrink from exposing it . . ."; and the various salons both here and abroad give all of us the opportunity of showing our pictorial work to the world.

I was thirteen years old when I received my first camera; it was given as a bribe in order to make me drink three glasses of milk a day. Then I had all the fun of learning my photography by the long road of experience. Fortunately I happened to have an inborn sense of composition; but my technical knowledge came rather slowly, as I was my own teacher. When I entered Dartmouth College, I joined the Camera Club and made my first enlargements. I was very fond of mountain-climbing, and acquired some sort of reputation for the winter-pictures I made on the excursions of the Dartmouth Outing Club. A number of these were published in the *National Geographic Magazine* and *Country Life* and, naturally, I received many compliments on my success. I learned my most important lesson then: Flattery means nothing and should be ignored. Constructive criticism is valuable when given by those who are capable of giving it; but praise from our friends, especially when it is given by friends who know nothing about photography, only tends to make us believe we are making better pictures than we really are. The true test of whether our pictures are pictorially good or not is to send them to salons, and if they are consistently selected to be hung by the juries, then it proves we are journeying along the road to success. We are then being recognised by experts.

As a rule, success is not gained in a short while; we must work for it. Do not be discouraged if the juries do not hang the first pictures you send in: the remedy is to do better work, and to keep sending them in each year. It took me a great number of years before I had my first picture hung at Pittsburgh: whereas at the most important exhibition in the world, the Royal Photographic Society at London, I had a picture hung the very first year.

Although I personally prefer to make pictures of children, I have not done that to the exclusion of other subjects. My portfolio, I believe, is very diversified. I see a picture in so many things, and that, of course, gives me a well-balanced collection. Originality, undoubtedly, is the greatest asset a pictorial photographer can have. When looking at the work of others, do not make the mistake of imitating it; instead, try to get an idea from their work which will give you a different viewpoint. Most of my successful pictures are those which have just flashed upon me. For example, on the way to a symphony concert at Carnegie Hall, I was passing through Grand Central Station, New York. Here were magnificent beams of sunlight playing on the floor. All I needed was to make a note of the time and to return the following Saturday with my camera and select a favorable viewpoint. Result: I had my "Sunlight, Grand Central Station". (*Note:* It is necessary to obtain permission to make pictures in Grand Central.)

I like best to make my pictures as I find them, develop them as soon as possible, and then put the negatives away and enlarge them during the winter-evenings. I never make a contact print, and all my enlargements are 11 by 14 inches. I find this is the best size for exhibition-purposes.

I have derived much pleasure from being a pictorial photographer: it makes me appreciate the beautiful in life, and it also seems to give pleasure to others. To illustrate the latter, I have a letter from Northern Rhodesia, Africa, commenting on one of my baby-pictures, in which the writer says, "I lost my heart to it the moment I saw it at the Exhibition in London".

Some Observations on Aërial Photography

A. H. BEARDSLEY

HAVE you ever been up in an airplane? If not, has it been a case of not daring to go, or simply that you have not had the time and opportunity? Perhaps the same questions might be asked about steeple-climbing, high diving, or auto-racing—in fact, about any rather hazardous occupation or sport. To some, to leave the ground in an airplane and fly several thousand feet above the earth is equivalent to jumping over Niagara Falls in a barrel. You may live through it; but the probability is that you will not. To others, flying is a delight—an exhilarating experience attended with no more risk than a motorboat race, a football game, or a Sunday afternoon auto-trip. With all due respect to our advanced civilisation, it is a question whether a man's life is really any safer when he leaves his home than it was in the days of wild beasts and bloodthirsty savages. It seems to me that we all take more or less of a risk wherever we go and whatever we do. Even in our homes there are serious risks which we must take, at times. In short, when it comes right down to facts, the modern airplane in the hands of a trained pilot offers no greater risk than we encounter daily as we go about our business and domestic tasks. "Yes, that's all very well", you say, "but this matter of being up in the air is different. If anything goes wrong, down you come—and it's all over. You haven't a chance". In reply, let me ask in how many

Courtesy Fairchild Aërial Surveys, Inc., N.Y.C.

A BULL FIGHT AT TAMPICO, MEXICO FRANK H. WILDUNG

motor-car, railroad, elevator, burning building, oil-fire, and other accidents, do the victims have much of a chance? Does not the man in the airplane with his parachute have as much of a chance for life as the man in a motor-car who is crashed into by a speedster? I'll admit that in a motor-car accident you can get out and walk, if there is anything left of you after the crash; but in many cases this has been proved to be equally true in airplane crashes. It seems to me that accidents on land, sea, or in the air are fatal or not, according to what happens and how it happens. Therefore, so far as I am concerned, I feel just as safe in the air as I do on the ground or under it, on the water or under it, or in an express elevator in the Woolworth Building in New York. Perhaps the diffident reader is still doubtful about safety in the air. At any rate, I have tried to convince him that flying is really not so dangerous or foolhardy as he may think. The splendid record of the United States Air Mail, the many aërial exploration and surveying projects, the hundreds of aërial photographic expeditions and, most important of all, the outstanding work of Colonel Charles A. Lindbergh, prove that straight flying is today as safe as any other form of transportation with reliable equipment and trained personnel.

Assuming that the reader is convinced that he can trust himself to the guidance of a good pilot who controls a good airplane, what about making pictures while aloft? There's the rub for most of us. I am now addressing Mr. and Mrs. Average Amateur Photographer. What good does it do for me to say that as a Captain, Signal Corps Reserve, United States Army, I have been up a number of times and used a Fairchild K-3 Aërial Camera with pleasure and satisfaction? These cameras are not on public sale. Furthermore, if they were, how many of us could buy one when the cost is in the "thousand dollars and up" class? Then, too, there are other excellent aërial cameras made by the Eastman Kodak Company which are just what most of us would like; but the price is beyond our reach. Right here let me venture to predict that eventually some enterprising camera manufacturer will produce an aërial type of camera for amateur use, even as the 16-mm. Ciné-Kodak, Filmo, Victor, and other small movie outfits made amateur motion-pictures possible. We must all admit, whether we ever fly or not, that aviation is growing daily, and that in a very few years there will be regular land and sea aërial cruises and tours with the usual camera-equipped tourist very much in evidence. It stands to reason that, in the aërial tour to Yellowstone Park, those who go will wish to make pictures from the air and they will demand a special camera for the work. We have Panoram Kodaks, Ciné Kodaks—and why not an Aërial Kodak? There are exceptions, I know; but, generally speaking, there are today no popular-priced aërial cameras of standard manufacture available for the average amateur.

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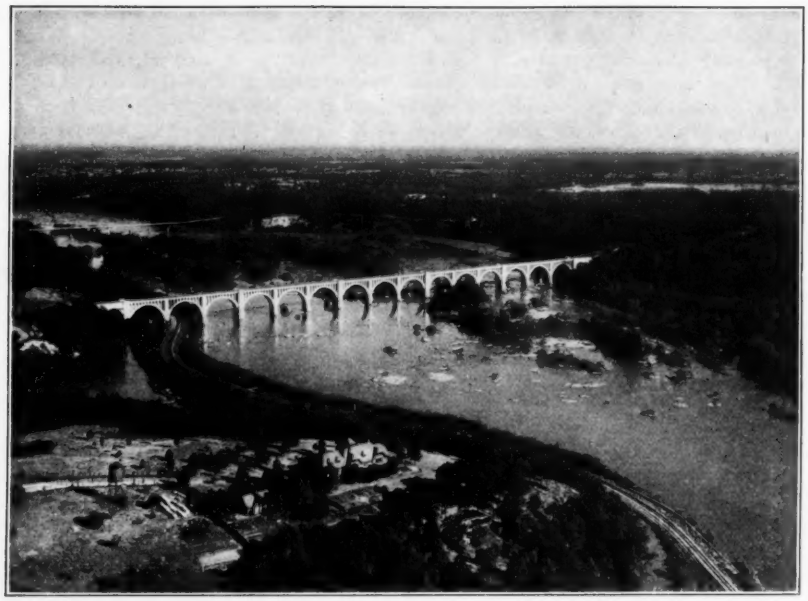
CIRCLE ON THE PARKWAY, PHILADELPHIA, PA. F. H. WILDUNG



Courtesy Fairchild Aërial Surveys, Inc., N.Y.C.

KEY BRIDGE, VIRGINIA — FRANK H. WILDUNG

The exceptions, in my experience, are the home-made aërial cameras produced by amateurs who failed to get results with ordinary cameras and could not afford the expensive aërial equipment now available.

Some remarkably good pictures have been made from the air with the usual types of ground cameras. I am not wishing to go on record as saying that ground cameras cannot be used in the air; but I do believe that a camera made especially to meet aërial conditions will produce consistently better pictures and give better satisfaction. This point was proved to be true during the World War, when desperate measures had to be adopted. The modern aërial camera is a marvelous instrument, and it had its beginning behind the lines during the struggle "over there". Each year sees important improvements; but, as yet, the average amateur has been left out of consideration by the manufacturers. To be sure, the demand for amateur aërial cameras will not tax the capacity of any camera manufacturing establishment for the present; but I still maintain that, within a few years, there will be a demand for such equipment because aviation is on the increase.

As already stated, most of my aërial photographic experience is enjoyed while on active duty as a Reserve Officer, United States Army; and for that reason I have exceptional equipment and well-trained personnel to help me. The average amateur has none of these things. Last summer I was asked by the Commanding Officer of the 322d Observation Squadron to come over to the Concord, N.H., Airport and make some pictures of the camp, the men, and some pictures from the air. I was particularly glad to go on this mission, as Colonel Lindbergh was to use this same field in case he could not get to Portland, Maine. It will be recalled that fog did compel him to land at the Concord Airport. At any rate, I arrived at the camp equipped with my little Kawee. For some reason the Commanding Officer had the idea that I owned a Fairchild or an Eastman Aërial Camera. When I told him what they cost, he understood why a Captain could not own one. He looked at my Kawee critically. "Can you get anything with that?" he asked. "Yes, sir", I replied, with the mental reservation that my affirmative answer applied only to ground photography. What I could do with it in the air I did not know. Well, my ground pictures did turn out nicely, and they were published in an army bulletin; but those made in the air? Total failures—all of them!

This brings me back to my observation that the average amateur, with the average camera equipment, is entirely out of his element a few hundred feet off the ground. To all intents and purposes, I represented the average amateur with my 2¼ x 3¼ Kawee, fitted with Carl Zeiss Tessar F/4.5 and Compur shutter. Frankly, when I climbed into the rear cockpit of the DH, I did feel that my Kawee would get what I wanted. My reason for this belief was that on several other flights I had been rather successful with my Vest-Pocket Ansco, fitted with a Modico F/7.5 and a shutter with maximum speed of one two-hundredth of a second. I set the lens and shutter on the Kawee on the same basis that I set the lens and shutter on the K-3 Fairchild Aërial Camera. For the light and day, I believed that F/4.5 and a two-hundredth was about right. Before leaving the ground I inserted a new film-pack, and made myself a little cosy corner behind the windshield, so that the blast from the propeller would not hit the camera and tear the bellows out by the roots. At length, I was all set; my pilot asked for directions and altitudes, which I gave him; and, with a roar, we started out. We circled several times to gain altitude, and I shall never forget the magnificent view of Merrimack River Valley and the city of Concord, N.H. However, I was not up on a sightseeing tour. I had pictures to make for the Commanding Officer. When we were about one thousand feet up, I began making pictures. We circled this way and that, and everything seemed to be going beautifully. On the way back we climbed higher, so that I might get a larger area in my pictures of the Concord Airport from the air. The particular DH in which I was occupying the rear seat seemed to me to have more vibration than others of the same type I had flown in; but I felt reasonably sure that the way I stood up and balanced myself when making each exposure would obviate any difficulty from vibration. For the most part, the Kawee was getting no blast from the propeller, although once in a while the exhaust from the twelve-cylinder Liberty let go close by my head and camera, so that I looked as though I had been playing in a pile of soft coal. This exhaust was not conducive to slow and careful pictorial composition. I was lucky to hold on to the camera, let alone make a picture. However, I was having a splendid cruise, and I took as much time as I dared, so that the flight would be prolonged. Nevertheless, when the last

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CASTLETON BRIDGE DURING CONSTRUCTION, CASTLETON, N.Y. FRANK H. WILDUNG

exposure was made, I signaled the pilot, and back we went to report to the Commanding Officer. After washing up, I hurried into Concord with the film-pack to get it developed. As already stated, the aërial part of my picture-making was a total failure. I leave it to my reader to fathom my feelings!

Well, there was nothing to do but try again. However, there was neither time nor plane available for a re-make; and the curtain was lowered on the painful scene. Yet, for me, there was a bright spot in the experience. I had flown from the Concord Airport and seen something of the beautiful Merrimack Valley from the air. Naturally, when I had somewhat regained my composure after such a hectic failure as an aërial photographer, I tried to find a reason for it all. There was no question that the little Kawee was functioning accurately; for all the ground pictures made with it were good. What happened to it in the air? Why did I get pictures with the Vest-Pocket Ansco, and not with the Kawee? Frankly, I do not know; but I shall hazard a few guesses. I think that my failure with the Kawee in the air was due to light reaching the film-pack because of air-pressure. I know that even with the Fairchild Aërial Camera we had to tape up every spot which might possibly leak light. On the ground the camera was absolutely light-tight; but in the air, light would get in somehow. It would seem that air under pressure will force light through an otherwise light-tight camera. Why, then, did not the Ansco leak light under similar conditions? Well, perhaps using a roll-film made some difference, as there was no pulling of tabs to open up possible leaks through the film-pack adapter. Then, too, the construction of the camera did not expose quite so much bellows to the air. The Ansco was used at an elevation of over 10,000 feet, and the Kawee not over 1,000 feet. As I recall the two planes, I think that I was able to give the Ansco better protection because of a different shaped cockpit. Yet, it would seem that if air pressure has anything to do with it, the Ansco at 10,000 feet altitude should have leaked as much or more than the Kawee. Perhaps the question is one of roll-film versus film-pack. Both cameras were used with wide-open lenses; the F/4.5 leaked, and the F/7.5 did not. The one with a Compur shutter leaked; the one with Wollensak did not. The shutter-speeds in both cases were the same, as marked on the shutter. My point in mentioning these cameras is to bring out the fact that the average camera is not to be relied

Courtesy Fairchild Aërial Surveys, Inc., N.Y.C.

WASHINGTON'S HOME, MT. VERNON — FRANK H. WILDUNG

Courtesy Fairchild Aërial Surveys, Inc., N.Y.C.

COLONEL LINDBERGH'S RECEPTION IN NEW YORK HARBOR — FRANK H. WILDUNG

upon for aërial work. This is said with no disrespect intended for my Kawee or Ansco, both of which are serving me well. Really, it is not quite fair to them to ask that they do work which their makers never intended them to do. Again, let me say that I am fully aware of the many excellent pictures which have been made from airplanes with Graflex, and other reflecting-type cameras; but when one looks at aërial photographs made with cameras made for the purpose, there is no question that the ordinary ground camera is lacking.

All of which should not be construed as being an effort to discourage my readers from taking up their cameras whenever they have the opportunity. The great improvement which is being made in airplanes, especially those for passenger travel, makes it possible for the passenger to escape the rush of air and the effects of a smoky exhaust. My experience has been confined to airplanes which have had open cockpits.

The aërial photographs which accompany this article were made by Frank H. Wildung, with a Fairchild Aërial Camera using Eastman Aërial Panchromatic Film. Without a question, much of the clearness and detail of these pictures is due to the special film used.

I believe that these pictures offer proof that aërial photography with a modern aërial camera is one of the most thrilling experiences that the lover of photography can enjoy. When the day comes that moderate-priced aërial cameras make their appearance on the market, more amateur and professional photographers will take to the air, and aërial pictures will be lower in price and the demand for them will increase proportionately. In the meantime, this coming summer there will be many opportunities to make short flights from mountain and shore vacation-resorts. It will be well worth the time and effort to attempt some exposures from the air. Without a doubt there may be failures and, then, there may be great success. At any rate, this beautiful world of ours will look new and interesting to us; and, perhaps, we shall learn that there is a singular beauty of the air, as there is a beauty of the sea and of the land. Those of us who have been up know that the airplane has opened the door to a new world—a world waiting to be photographed as birds have seen it for centuries.

Photography in School and College

ARTHUR L. MARBLE

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Chapter IX—Some Present-Day Photographic Activities

IN 1927, Mr. Herbert L. Connelly, of the Wesleyan University Alumni Council, directed a questionnaire to some 225 American colleges and universities. By April 11, 1927, 143 replies were received, of which number the following sixty-three institutions reported the use of motion-pictures in alumni work:

University of Alabama
Allegheny College
Amherst College
Bates College
Beloit College
Boston University
Bowdoin College
Polytechnic Institute of Brooklyn
Brown University
University of California
Carnegie Institute of Technology
Colgate University
Columbia University
Cornell University
Dartmouth College
Duke University
The College of Emporia
Grinnell College
Haverford College
Hobart College
Hood College
Howard University
University of Illinois
Iowa State College
University of Kansas
Lafayette College
Lehigh University
University of Maine
Marquette University
Massachusetts Agricultural College
Massachusetts Institute of Technology
University of Missouri
Mount Holyoke College
University of Nebraska
University of Notre Dame
Ohio State University
Ohio Wesleyan University
Oregon Agricultural College
Pennsylvania State College
University of Pennsylvania
Pomona College
Princeton University
Radcliffe College
Rutgers University
Smith College
University of Toronto
Trinity College (Hartford, Conn.)
Tulane University
Union College
University of Utah
Vanderbilt University
Vassar College
University of Vermont
University of Virginia
Washington University (St. Louis)
Wellesley College
Wesleyan University
Western Reserve University
Winthrop College
Wittenberg College
College of Wooster
Worcester Polytechnic Institute
Yale University

The tabulation of Mr. Connelly's questionnaire reveals the following illuminating data:

Number using "safety" film	25
Number using ordinary film	15
Number using 9-mm. film	0
Number using 16-mm. film	18
Number using (standard) 35-mm. film	29
On hand 500-feet of film	5
On hand 1000 feet of film	9
2500 feet of film	18
Over 2500 feet of film	13
Number using Eastman camera	5
Number using Bell & Howell Camera	7
Number using Pathé camera	2
Number using professional camera	0
Number using Acme	5
Number using DeVry	9
Number using Universal	1
Eastman projector	8
B. & H. projector	10
Pathé projector	1
Professional projector	8
DeVry projector	4
Who makes the pictures?	
The alumni secretary or editor	8
His assistant	3
Students	7
Professional	38
Faculty members	7
Who does the editing and titling?	
The alumni secretary	17
His assistant	5
The president	1
Faculty members	9
Professional	18
Students	4
What have you filmed?	
Scenarios	16
Athletic events	49
Alumni reunions	35
Alumni officers	2
Campus scenes	48
Faculty members	33
Special university events, such as installations	8

Films shown at

Local alumni meetings	52
Secondary schools	36
Motion-picture theaters	15
Distribution is provided personally by	48
Distribution is provided through professional houses	2

What is the usual reaction on the part of the alumni?

Enthusiastic	40
Interested	13

Is it worth the amount of time put upon it?

Yes	45
No	2
Doubtful	8

The same year the author, in collecting data on the photographic and visual educative activities in American schools and colleges, communicated with approximately a hundred institutions, including a large number of those reported by Mr. Connelly to be using motion-pictures. It was felt that by inquiring of a limited number of representative schools, a number of helpful facts would be revealed. With such a purpose in mind the following questions were asked:

1. *To what extent have motion-pictures been made at the Institution?*
2. *Are motion-pictures recognised as an art at the Institution?*
3. *What are the future prospects for the making and use of motion-pictures at the Institution?*
4. *Is a course in photography given or contemplated?*
5. *If no photographic course is given or contemplated, what, in your opinion, are the reasons?*
6. *About what percentage of the institution's photographic work (yearbook, scenic photography, etc.) is done by students?*

Approximately three-fifths of the institutions addressed made reply. The nature of the questions asked makes a tabulation of the answers of little general interest, so the author takes the liberty of quoting a number of statements that tell their own story:

To what extent have motion-pictures been made?

Beloit C. "We have over three thousand feet of films."

Brown U. "For the last two or three years we have been attempting at Brown to make motion-picture records of interesting events which take place in connection with the University exercises."

Colgate U. "One picture, 'Roomates', made by the dramatic club."

Cornell U. "A few reels have been made for the purpose of showing alumni the development of the campus."

Dartmouth C. "Annually by the Senior Class, four or five reels long. Also, by the college, composed of under-graduate activities and views of the campus."

Grinnell C. "As early as 1913, motion-picture films were made of college-life and activities, laboratories, athletics, pageants, etc., and exhibited in many places."

Haverford C. "Sixteen-millimeter film of athletic events, commencement, alumni day, etc., made by the amateur owners of Bell and Howell outfits in student body."

U. of Illinois. "Research in visual education, research on engineering problems, microscopic biological, university activities, agriculture."

Indiana U. "A five-reel campus-film covering many departments of the University at work. A basketball film showing instruction—used nationally—one reel. A one-reel film of the James Whitcomb Riley Hospital for Children, a division of the University. A number of reels of football film have been made—some by the University and others by outsiders."

Marquette U. "Home-coming football game made in 1923 and used around State."

Ohio State U. "Some for the Agriculture Extension department, and by a student committee for University publicity; also physical education."

U. of Pennsylvania. "News-reels made by commercial operators of athletic and other student-events; special motion-pictures of University buildings, faculty men, undergraduate activities by the University for use in schoolboy and alumni work."

Princeton U. "A five-reel film was made of University life some time ago. At the present time each Senior Class is making its own film of its activities while in college."

Rutgers U. "None officially by Rutgers, except in 1924, when some views were made on a small machine, and in 1916 when pictures were made of our 150th anniversary celebration."

U. of Toronto. "Limited number for purpose of recording interesting events. Technical pictures of processes or operations, notably in hospital work."

Tulane U. "Some motion-pictures have been made at Tulane University in connection with Founder's Day exercises, etc. A complete motion-picture of the University and its numerous activities was made by the Harcol Film Co., and was sent to France to be colored."

U. of Virginia. "Only in connection with the Centennial celebration in 1920."

U. of Vermont. "A few pictures only. The institution does not own a motion-picture camera, but has occasionally rented one."

Wesleyan U. "(*A*) In 1917, one 35-mm. reel

was made and used in Wesleyan's campaign for $3,000,000 Endowment Fund. (*B*) In 1925 (November), Bell and Howell Filmo camera was purchased to film all sorts of campus-scenes and activities to be shown at alumni meetings throughout the U. S. A. We now have a library of 7,400 feet of 16-mm. film. (*C*) Pathé News, made shots of commencement doings last June, and we now have nine copies of that reel in 35-mm. size for use by such alumni associations as can arrange locally for showings."

Are motion pictures recognised as an art?

From the answers received it is very evident that comparatively few institutions have formed any definite opinions. Several schools answer in the negative, others state positively that they consider the motion-picture a fine art, and still others consider it only as a commercial art. Among the Eastern universities none is more emphatic in its recognition of the motion-picture as a fine art than Harvard University, which is preserving the best films produced each year. Equally sincere in its belief in the artistic value the film is the University of Southern California, where a complete course in motion-picture technology has been recently instituted.

What are the future prospects for the making and use of motion-pictures?

Beloit U. "More rather than less."

Brown U. "It is our purpose to continue this effort with the idea of recording all of our important events."

Cornell U. "There is nothing to indicate that motion-pictures will be regularly made here; their use will depend upon their usefulness for instruction."

Dartmouth C. "The active use of motion-pictures will continue in the future as at the present. No other plans are contemplated."

Haverford C. "Limited entirely to amateur efforts of students without particular aid from any department of the faculty."

Marquette U. "None, except in M-G-M, Pathé, Fox, International, Paramount, Kinegrams."

Ohio State U. "Probably will have equipment to get into this line before long. As University photographer I have had several requests for work of this sort."

U. of Pennsylvania. "There is in prospect the making of a narrative film on student-life as well as the making of current news films."

Princeton U. "The alumni organisation should like very much to be able to keep its film up to date; but it is rather an expensive proposition."

U. of Toronto. "Prospects are for continual expansion in this direction, limited, of course, by the question of cost."

U. of Vermont. "There is no question but that the making and use of motion-pictures will be considerably increased during the next year or two. An additional projector is being purchased, making three in the several departments."

Wesleyan U. "We shall continue to use movies for news-reel use. Whether or not our undergraduate dramatic organisations will attempt to use our equipment for making photoplays, I cannot say. We have tried to get the students to do it for two years, but their inexperience has seemed to be the thing that prevents action."

How much of the photographic work is done by students?

Beloit U. "More than two-thirds."

Colgate U. "Chiefly by professional photographers."

Cornell U. "Almost none."

Dartmouth C. "There is a student pictorial magazine known as *The Dartmouth Pictorial*, which is composed entirely of pictures made by undergraduate members of the board of the paper. In addition to this, there are always boys in the college who are very active in photographic work."

Grinnell C. "Many students and some members of the faculty are capable photographers, and their work is indispensable in the various college and undergraduate publications."

Haverford College. "Twenty-five per cent."

Indiana U. "None. Uusally hired to professional photographers."

U. of Illinois. "None by students. All of the institution's photographic work is done by the University Department of Photography."

Marquette U. "Ten per cent. (Estimated.)"

Ohio State U. "Very small per cent. Probably not over two per cent."

U. of Pennsylvania. "The student daily, *The Pennsylvanian*, publishes a weekly pictorial supplement of six pages; all pictures are made by students, printed and developed."

Rutgers U. "About twenty per cent."

U. of Virginia. "None or very little."

U. of Vermont. "Roughly, I should say twenty per cent."

Wesleyan U. "About fifty per cent."

To what extent is photography taught?

Dartmouth U. "A course on The Principles of Photography is given each year. It includes work on the physics and chemistry of photography and their applications. Laboratory-work is also a part of the course."

U. of Illinois. "Given for ten years for advanced and graduate students. Practical and technical. Much microscopic work."

WISTFUL
K. A. LUTHER
HONORABLE MENTION—PORTRAITS

Indiana U. "None. We give courses in Visual Education, however. Have done so for past four or five years."

Ohio State U. "We have had a course here for many years—mainly for engineers—giving them lectures, demonstrations, and practice in the making of reports, etc."

U. of Toronto. "Photography has been on our curriculum for a number of years. It is concerned mainly with its use as a means of record. All the photographic work of the University is centralised in a Service Department. The staff in this department is in charge of a Director of Photographic and Projection Service. This department executes for all other University departments any photographic work that they may require and also furnishes lantern, motion-picture projectors, and operators for the same at any time and place."

U. of Vermont. Professor Perkins "personally conducted a course in 'Photography for Scientific Workers' for ten years. It was discontinued because the facilities for practical work were meager and there was no accommodation for a large darkroom. The number increased until it became necessary either to discontinue or to limit the size of the class."

U. of Virginia. "The writer has given such a course in the summer schools."

Where photography is not taught, what are the reasons?

Some of the answers frequently given are:

No demand for it.

Not suggested by school officials.

Lack of equipment and finance.

Photographic work too specialised for liberal arts institutions.

Curriculum already overcrowded.

As before stated, the facts quoted above come from a relatively small percentage of the higher institutions which are actively engaged in photographic work of one kind or another. It should further be borne in mind that the statements are from liberal arts institutions, and are no index to the activities that we are being carried on in other types of schools.

Those of our educators who have successfully made and used motion-pictures in alumni campaigns will agree with the late Charles W. Eliot that "the motion-picture is a valuable means of instruction, and all our schools should seize upon it." But, sad to say, a large percentage of the so-called educative pictures are not worth seizing. However, progress in raising their quality is becoming apparent.

What Can We Do?

What we need is more pictures produced by authorities in the various fields of knowledge; the work of men acquainted with the needs of young people. The producers of *The Chronicles of America* photoplays—those most accurate and thrilling history-films—have demonstrated that scholars from different educative institutions can profitably co-operate in picture production. It is true that Yale University furnished the means and leadership for the *Chronicles*, but the Advisory Editorial Staff included men from Smith College, Columbia University, and Harvard University.

One of the ways to produce the kind of pictures needed in the schools has thus been pointed out by the Yale University Press. These steps are: (1) Organisation among educators having a knowledge of what to produce, and (2) co-operation with a commercial motion-picture producer in sympathy with the scholar's point of view. The combined financial resources of a large number of schools and colleges would provide them with plenty of films at a low cost. The magnitude of this potential non-theatrical market is clearly shown by Nelsen L. Greene, editor of *The Educational Screen:*

"The theatrical film-market can be definitely measured. In round numbers we can call it 20,000 projectors, for only one projector runs at a time in the 20,000 theaters. Averaging all of them, running time is but a very few hours per day. Rentals are high, but sales-expense eats up an enormous fraction of receipts. And these 20,000 projectors are 100 per cent. of the possible theatrical field.

"The non-theatrical film-market has not reached 1 per cent. of its possibilities. It has perhaps 15,000 projectors. But one-third of them is unused; another third used occasionally; the other third may be running to half their capacity. The average run is but a few hours per week. Add to this that film-rentals are ridiculously low. Naturally, such a field is practically ignored by all but a very few theatrical producers. And yet a mere 20,000 schools—with projectors usable from 9 A.M. through the day and evening for school and community purposes, several projectors even running at the same time in different rooms—would equal or exceed the total theatrical run, if the schools could get the film. And '20,000 schools' are about one-fortieth (1/40) of the non-theatrical field.

"What will '100 per cent. of the non-theatrical field' mean? There are in the United States—naming always round numbers far below the actual figures—200,000 schools, 200,000 churches,

CURLY HEAD — HENRY SILL

HONORABLE MENTION—PORTRAITS

200,000 clubs, lodges, and community centers, besides another 200,000 projector prospects in colleges, normal schools, universities, hospitals, prisons, welfare institutions, hotels, railroad-stations, public parks, and playgrounds, on trains, steamships, airships, not to mention American homes. Here are 800,000 potential projectors, or forty times the number of theaters. Further, this vast field as a whole is already inclined to install projectors; they do not need to be 'sold'. Why, then, have the 800,000 bought only 15,000 projectors to date? For two reasons—one unimportant, the other all-important.

"First, the cost of the projector. This is a minor matter. Even small schools and churches manage it. The pitiful part of it is that thousands of these hard-won projectors have had to go into cellars and closets to gather dust. The rest of the field knows this, and hence refrains from buying many films now available.

"Second, the lack of films—and this is the crux of it all. The non-theatrical field has lived from the beginning on miserable stuff, the crusts and the crumbs. It is tired of the crude relics of early productions, tired of worn-out prints from negatives long since out of circulation, tired of the nondescript film-efforts of well-intentioned pedagogues and earnest amateurs. Improvement of theatrical pictures has created taste and appetite for films of quality, and the non-theatrical field wants that quality. It cannot get it, yet. It is waiting only until it can. And where will this film come from? It can come only from those who have the knowledge, skill, and resources for making quality films; namely, the theatrical producers.

"The vast non-theatrical market is there, eager and ready to start. It is forty times the size of the theatrical market when it gets the projectors. It will get the projectors itself the moment it knows that serious production has

started—and the projectors will go in faster than the films can be produced. Rentals will be higher than now—for the films will be worth it—but always lower than for the theaters. There is ample compensation for this lower rental—the size of the field, its willingness to wait until the film has earned its maximum profit in the theaters, no more need for costly advertising, and longer circulation life because non-theatrical value is a matter of content, not of date. The theaters will always have the new releases, the non-theatrical field will always take them second-hand, demanding only that the pictures are good—which means, incidentally, that the conflicting interests of the theatrical exhibitors and the non-theatrical field are largely imaginary."

Harvard University has recently revealed another way of combining the knowledge of the educator with the skill and resources of the commercial producers. By special arrangement with Pathé Exchange, Inc., the divisions of Anthropology and Geology in Harvard University have been given the privilege of selecting, editing, and titling educative science films, taken from the Pathé Exchange files, which contain more than two million feet of film.

At some future date the leading colleges and universities may photograph their own educative motion-pictures, just as a number are now producing dramatic films. Before that time comes, however, there must be in the schools men possessing a thorough knowledge of the photographic art and science.

(To be continued)

The Amateur's Sample-Album

IRVING L. OAKES

THERE are many times when an amateur wishes to carry with him some of his best prints, particularly if he has specialised in a certain branch of photography, such as homes, groups, landscapes, interiors, or any special class of work.

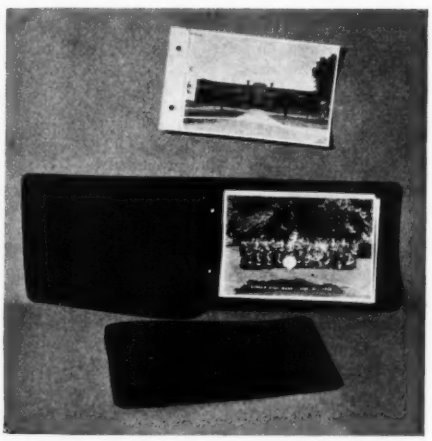
I have three albums. Two are shown in the photograph. In one, I have my best building and home photographs. Another I have for groups, and the third for my fancies and pictorial efforts.

The albums are flexible folders, with an arrangement of two screws for holding the leaves in place. One album will hold about fifteen double-weight prints.

The size that I use is 8 x 5 inches—just the thing for 5 x 7 horizontal prints.

In preparing the prints for the albums, I print my 5 x 7 negatives on double-weight 5 x 8 paper. I use a mask to get the white margin, and at the left of the picture I leave a broad margin for the hinge. This hinge should be an inch wide. After the prints are dried, the hinge is trimmed off, then attached to the print with a strip of gummed tape, leaving enough space between the hinge and print to fold easily. It is best to attach the hinge before trimming the print proper.

A perforator should be used to punch the holes. By attaching the perforator to a board about 6 x 12 inches and then marking on the board, for future guide, the place and position of the print to be perforated, a very neat job can be done.



THE SAMPLE-ALBUM IRVING L. OAKES

I looked in several camera catalogs for just such an album as the one here described; but I failed to see any listed, so I purchased these and the perforator at an office-supply store. This idea may be adapted to several needs and is here given as a suggestion which may be subsequently improved upon.

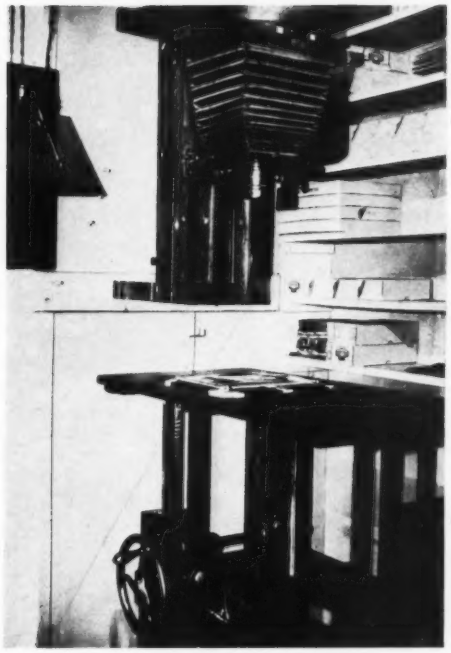


FIGURE 1 EMERY G. GREGORY

Studio-Accessories Furnish Parts for Projection-Printer

EMERY G. GREGORY

THE advantages of the projection-printer have been so apparent that many photographers have either purchased one of the many on the market or have built some form from their own ideas. In the small work-room where space is at a premium, the old space-stealing horizontal enlarger has little to recommend for itself.

An outfit which can be easily made, at little or no expense, can be put together with practically the materials at hand in the usual studio. The writer possessed one of the old-style Eastman enlarging-cameras equipped with condensing lenses and sliding bed. This, together with an old New York studio-stand, furnished the projection-printer shown in the illustration.

The Eastman enlarger was securely fastened to the wall, and the sliding bed firmly fastened to keep it from falling. The light-source was connected with a push-button switch at one side, and the lamp-bracket was fastened in place at its usual position in the lamp-house.

The New York studio-stand served as the rising-and-falling printing-table, focusing being done by hand in the usual manner. The New York stand has the advantage of the tilting top, which is many times a distinct help in enlarging from distorted negatives of architectural subjects or other subjects with false vertical perspective. The illustration is self-explanatory, and a little ingenuity and mechanical skill will evolve a similar arrangement when the original enlarger and stand are of a different make from the ones the writer happened to have in his possession.

When not in use, the enlarger is out of the way and the printing-table makes a fine stand for the small printing-machine, as it is adjustable to the height of the operator. Altogether, I have found this outfit to be very satisfactory.

Outdoor Studies of Children

ARTHUR H. FARROW

Ah! What would the world be to us
If the children were no more?
We would dread the desert behind us
Worse than the dark before.

LONGFELLOW.

WHAT greater joy is there than to be outdoors with the children? What gives more pleasure to the picture-maker than the portraying of boys and girls in characteristic poses? What more delightful photographic studies could one have than those which depict child-life in its many activities?

The making of outdoor child-studies is one of the most delightful branches of photography. There is no branch of the art which is at once so elusive and so fascinating. No models are so charming as children, and none offer so many opportunities to the camera-enthusiast. It is a branch of the art in which one can find subjects at all seasons of the year.

It must be admitted, however, that success is not always easy to attain. An occasional lucky shot may yield a picture worth while; but, if one desires to obtain a reasonable measure of successful results, careful planning has to be done and one must have something definite to aim at. In photography, so much depends on knowing what to do and how to do it!

Take a look at the pictures displayed in the photo-finisher's window, or go through the album of snapshots to be found in almost every home, and you will find that fully half of the pictures are of children; but how few of them merit more than a passing glance! Most of them are just records—sorry attempts at outdoor portraiture. There is no indication of planning or that their makers possessed any knowledge of the fundamental rules of composition. The youngsters were just posed in a convenient spot and the exposure made. All the essential details that enter into the making of successful pictures were either overlooked, or the one who operated the camera knew nothing whatever about them. There is such a beautiful simplicity about a young child that one wonders why there are so many stiff, unnatural child-pictures produced.

The main thing in child-studies, whether indoor or outdoor, is that everything should be as simple and as natural as possible. There should be no stiff poses; no arraying of the youngsters in their best dresses, no fancy hair-ribbons or furbelows. Portray them in original poses if you can, but do not dress them up!

Every amateur photographer who is a real lover of children and is really eager to make successful studies of them can succeed in this delightful work if only he—or she—will persevere and not be discouraged by the failures that are bound to come from time to time.

The one who essays to do this work must understand and love children—must be able to gain their confidence and their help; otherwise, all efforts are apt to result in failure and disappointment.

Patience is the keynote of success in portraying children; and in order to obtain the best results the photographer must be equipped with a goodly store of it—perhaps more so than in any other field of photographic work. For those to whom it appeals this work has a fascinating interest—an interest which will grow keener the further it is pursued.

Opportunities for making studies will occur when least expected; therefore, always have a camera in readiness. When automobiling in the country, a stop is often made by the wayside for a brief rest. The children are tired of riding and are restless; they want to stretch their little legs. Leaving the car, they show a live interest in the things around them. Near by they discover a field of daisies, and are soon picking an armful to take home with them.

Here is the opportunity the alert camera-enthusiast has been waiting for. He gets mother to pose the children, and several exposures are quickly made. Unless one is used to children, it is generally advisable to get someone who understands their ways and their moods to arrange the poses.

Do not tire your models by unduly prolonging the proceedings. Remember that a tired child is apt to be a trifle irritable. When attempting to make a series of studies, allow yourself plenty of time and do not fuss too much with your subjects! Adjust the camera and do as much of the preliminary focusing as possible before arranging your subjects. Most children are naturally graceful and, sometimes, if left alone, they will pose themselves more pleasingly than if prompting is resorted to.

Camera-consciousness spoils many otherwise excellent outdoor child-studies, and it is worth while going to considerable trouble to avoid it. Never let your subjects know the exact moment of exposure. Engage them in conversation, and take advantage of an opportune moment when pose and expression are just right.

TRANQUILLITY
THE SPIRIT OF SUMMER

MYRIADS OF DAISIES
WHEN THE CORN IS IN THE SHOCK

BOB AND JUNIOR
THE YOUNG MOTHER

OUTDOOR STUDIES OF CHILDREN

ARTHUR H. FARROW

Children move very quickly, so it is advisable to make duplicate exposures whenever possible. When this is done, the stop and the speed may be varied—particularly when an exposure meter is not used—to check your judgment in determining the correct exposure.

Endeavor to give the longest exposure possible without showing movement. In this way a soft, well-gradated negative can be obtained. The developer should be well diluted.

One of the most important things to consider when planning an outdoor child-study is the background, or, to use a more appropriate definition, the "setting". An outdoor study is really a combination of landscape and figure study. To the pictorialist, whether it is a landscape with subsidiary figures, or whether it is a figure-study with a landscape background, matters very little. Such pictures as we have in mind should not depend upon their place in any particular class or style, but only upon their appeal to the imagination.

The question of apparatus need hardly trouble us at all. Much creditable work is being done with rapid rectilinear lenses, and surprisingly good results are often obtained with a Brownie camera equipped with a simple meniscus achromatic lens. Of course, a camera of the reflex type and a super-speed anastigmat lens will give a definite advantage to the worker who is fortunate enough to possess such an outfit; but reflex cameras require skillful handling, and their cost is often beyond the means of many individuals who are interested in photography.

Small roll-film or film-pack cameras are well suited for the work, provided one is familiar with their possibilities and their limitations. They are compact and easily handled, and can be used with a minimum of fuss and bother. A portrait-attachment may be used to increase the size of the image when desirable.

The size of negative is really of little consequence nowadays. If fairly sharp and well-timed negatives are obtained, enlargements can readily be made to any desired size with an auto-focus enlarger. Modern apparatus and modern methods enable one to make projection prints almost as easily and as quickly as contact prints. A tripod will prove a material help to successful results, and it is well to carry one.

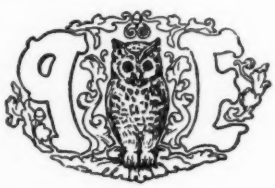
Now that entirely practical motion-picture cameras and projectors are available to the amateur photographer at a reasonable cost, many workers have become interested in this fascinating work. When one has purchased an outfit, the reason that is often advanced for doing so is that a motion-picture camera will make it possible to obtain permanent records of the children and their activities in lifelike poses—just as one actually sees them in everyday life.

So far as action is concerned, motion-pictures have a decided advantage over "stills", but the cost of operation is more than the average amateur photographer can afford. The time is not yet at hand for the movie camera to replace the regular camera; but, for those who can afford it, it is well to be equipped with both types of apparatus. Neither will fill the place of the other; but either may be used in its particular field with good results.

It will interest those who desire to make their cameras contribute something toward the expense of their photographic activities to learn that aside from a personal and artistic standpoint, child-studies have a tangible marketable value. Because of their general appeal and intense human interest, publishers and advertisers are always on the lookout for this type of picture, and the demand can never be fully satisfied.

Composition and technique may be of mediocre quality; but if the picture has the proper appeal—a heart-interest—qualities which are looked for in other pictures may be overlooked or slighted, if the negative will yield a print that is suitable for reproduction by either the half-tone or rotogravure process.

The *Mid-Week Pictorial*—published in New York—offers weekly prizes for pictures made by amateur photographers, and fifteen or more prize-winning pictures are selected each week. Outdoor child-studies appeal to the judges, and pictures of this type are frequently awarded prizes. We are glad to call attention to this contest because the *Mid-Week Pictorial* is doing much to encourage amateur photography and the making of better pictures.



JESSIE DR. R. R. SCOBEY

HONORABLE MENTION—PORTRAITS

The Hemispheric Theory of Light-Intensity

Part II.—A Popular Unit of Solid Angle

F. MORRIS STEADMAN

AT the conclusion of my article in the December, 1927, PHOTO-ERA MAGAZINE, I stated that another would follow defining the units for photo-practice according to the Hemispheric theory, and I regret that this could not be prepared for the issue that followed.

It was stated that objects in general, in nature, were illuminated by the light that converged from space upon them. It was also shown that every plane surface is confronted by and can be illuminated from a hemisphere of directions, provided the light-source has sufficient extension, as the sky-area, and the mist that confronts and illuminates a card that is held within it. It was also shown that this potential hemispheric light-source is sometimes completely filled with light-sources of different intensities, as the sun, sky, and earth-reflections that illuminate a card when held out in the open; and, also, that it sometimes consists of practically total darkness, with the exception of a single light-source or a group of light-units. In this last class comes the candle flame, as used in nearly every physics book for the explanation of intensity variations for distance. In this latter class also belongs the illumination in a photographic camera, since the bellows creates

the dark extension, and the lens stop during the exposure is the only luminous part of the hemisphere that confronts each point on the plate or film.

It is a well-known fact that a lens-stop one inch in diameter will create four times the intensity in a lens of four inches' focal length that it will in one of eight inches. It is held in the Hemispheric theory that the same law governs with a candle or any light-source or opening, the converging pencil of rays being influenced by the changes of distance just as is the lens-stop mentioned. In the lens, the illuminated unit is the point on the plate, or practically each grain of sensitive salts in the emulsion; and for the natural light-source, the illuminated units are the points on the illuminated area, or practically each letter on a printed page, or each grain of salts when a sensitive emulsion is illuminated by any light-source in the ordinary way.

Now, since in nature a light-source *in actual fact* can have the extension of a hemisphere, as the sky, or ⅛ of a hemisphere, as at one diameter of any light-source distant from that source—whether it be a window or a flame—and 1/32 of a hemisphere at two diameters' distance; and since all light-sources become larger in solid angle or extension when approached, and smaller when retired from, and since larger and smaller lens-stops alter the solid angle of the light-pencils that they pass, it should be readily comprehended that in order to use these cones of light intelligently, whether in photography or in illumination, *we should be able to measure and to express their solid-angle value by means of a pure physical unit of that dimension.*

There are many uses for the measurement of ordinary angles, and the degree and its smaller subdivisions are taught in the common school arithmetic, with problems for solution. Unlike the circle, however, the sphere has never been honored with a popular unit for the measurement of its *solid* angle. So far as I can see, there was no real need for such a unit among the people until photography was discovered, when it became necessary to use the pencils of converging rays that lenses passed, in order to create in lenses a series of these values called "stops" and to express the solid angle that each lens could pass at its maximum opening.

But instead of recognising this value as a simple and fundamental dimension whose maximum is the sphere, and creating a simple unit for its expression and measurement, these lens-stops were given "time" numbers, as the 4, 8, and 16 in the Uniform system; and "form" numbers, as in the *f*/scales, the *f*/8, *f*/11 and *f*/16, in general use, and the German scale with its *f*/12.5, *f*/18, and *f*/25—an attempt to approach the decimal system. Then there is the Brownie type of cameras, whose stops are without numbers of any kind. There are probably more of these in the world than all the other kinds combined.

The tragedy has been the disassociation of these light-pencils in lenses from the natural ones formed by windows and by flames relative to a point on the surfaces that they illuminate.

I believe that had Kepler investigated the illumination from a window instead of from a small source, the idea of converging, instead of diverging, light-pencils would have been fixed by him for the explanation of intensity-variations, and the idea of rays diverging from a small source would have been associated only with the area that such an illumination would well cover, as explained in my December article. Had this happened, there would already have been created by the schools a world-wide, popular knowledge of illumination and intensity, and photographic exposures would have been made, since the discovery of photography, *by simple division*, the brightness of the subject and the value of the stop used being known in simple physical units.

The fractions which I have mentioned, ⅛ and 1/32 of a hemisphere, are, of course, expressions of true values when the hemisphere is considered as 1. How awkward it would be, however, to designate one degree as 1/360 of a circle! Much better fix a unit whose value is just a little smaller than the light-cones ordinarily used, especially in lenses, so that the series of values can be in integers instead of fractions.

My own unit of solid angle, as developed in my book, "Unit Photography", is the cone with altitude 64 or form *f*/64, which unit is 1/4096 of the cone with form *f*/1; and since *f*/1 is approximately ⅛ of a hemisphere, the unit is close to 1/32000 of a hemisphere. On arriving at 1024, the 24 may be dropped and a thousand written 1M. The values, both in fractions of a hemisphere and in the unit numbers, are given in the following table, together with the cone-altitude or *f*/ number that corresponds with the different values.

FRACTIONS OF A HEMISPHERE

1/32M	1/16M	1/8M	1/4M	1/2M	1/1M	1/512	1/256	1/128	1/64	1/32	1/16	1/8	
													All.

CONE-ALTITUDES OR F/NUMBERS

64	45	32	22	16	11	8	5.6	4	2.8	2	1.4	1	0

CONE-UNITS

1	2	4	8	16	32	64	128	256	512	1M	2M	4M	32M

If the reader will compute roughly the average

EL MULERO
CHAS. T. RAMSDEN
HONORABLE MENTION—PORTRAITS

diameter of any flame, as of a candle or kerosene-lamp, or of a gas-flame, or even that of a small arc-light, or any definitely bounded light-source, and hold a printed card 64 times that diameter from the source, the cone of light converging from that source upon each letter of the card will have a solid angle value, or, as Flammarion called it—"extension", equal to approximately 1/32000 of a hemisphere, and will have a value of 1 in the units suggested. With the window, on reading the card at four of its diameters distant from the converging cone, it would have an altitude of 4 and a unit-value of 256, the same as the value number of the lens-stop $f/4$.

We are about 108 of the sun's diameters distant from it, and therefore the altitude of its cone of light that illuminates a point on the earth, or each letter on a printed page, is 108, and its unit-value expressed decimally is about 0.35, or a little more than $\frac{1}{3}$ of a unit: $1 \div (\frac{108}{64})^2$. A smaller subdivision of the unit defined might be useful, just as the degree has its minutes and seconds of angle. In the common school arithmetic this unification of solid angle should follow directly after the table and problems of simple angle.

These values taught in the schools would create a foundation on which a popular knowledge of light could be built up. The mental picture of converging rays accepted in physics work would, on the one hand, give the student a true knowledge of Nature's way of working; and, on the other hand, turn every student's camera into a perfect laboratory instrument for the demonstration of exact scientific truths, which truths, in turn, would simplify and perfect the student's photography.

Just a little thought on the subject should convince the reader that light-intensity cannot be taught correctly in the books without making clear the use of light in the camera. It should be clear that the truths of intensity must be simple and fundamental truths, as applicable to the whole sky as to a candle-flame; the same for a lens-stop as for a window, and for varying as well as fixed distances.

The present popular ignorance of light, and the chaotic practice of photography, are ample proofs that the "Point Source" theory has failed. Its false mental picture of *diverging* rays (false in explaining intensity) leads the mind of every student straight away from nature itself, where all things are illuminated by the light that *converges* upon them from space.

Photography, in its present unscientific state, cannot be forced successfully into the public schools. As an extra course, this "dabbler's delight" would be a pest to teachers, since time is already lacking for each day's work.

On the other hand, as soon as the physicists will accept the truth that intensity is created by converging rays, then *photography will be incorporated automatically in the study of pure physics and will take its richly deserved place in the schools.*

In the next article, I shall define my unit of actinicity for surfaces, which unit, called the "actino", is based on the dimension of solid-angle convergence, as explained in this article.

An Aid for the Photographer of Wild Life

F. D. HARTFORD

ONE of the purposes of amateur photography is to preserve in a permanently visible form that which has been a pleasure to the eye. Only with our camera can we stop relentless "Time in his flight" and make him "turn backward" just as we choose.

Perhaps to no one is vouchsafed more appreciation of pictures than to the lover of outdoor-life; and he will turn to his album more often than he will look at the trophies on his walls. The pictures recall best the days he has been most keenly alive.

Even for the hardened vacationist, it is a rare treat to observe wild life in its native haunts, and a still rarer treat to get wild life suitably recorded on the film. And when I say "wild life", I mean wild life as we see it in our own localities. As it is more of an achievement to grow one rose an inch in diameter in New York City than a thousand six inches across, out in Oregon, just so it is more of an achievement to photograph a chattering squirrel in the Massachusetts woods than to snap a dozen bears in Yellowstone Park.

The person who hunts with a camera must exercise far more care and skill than the one who hunts with a gun. The latter may drop his animal at several hundred yards' distance; but the former must lure or surprise his game within a few feet of the lens. However, the knowledge of wild animals one has gained as a gun-hunter

FIGURE 1 F. D. HARTFORD

cannot fail to be of value when he has been converted to the camera way.

For several years the writer has endeavored to make pictures of wild animals by ambushing the camera near their trails or where special food had been placed, and then operating the shutter by means of a thread. This *modus operandi* has proved an unbounded failure. Either the thread would break, or the pull would shake the camera at the critical time, or the wild animal would see the thread move and disappear instantaneously. At any rate, not a single creditable picture to reward hours of patient watching resulted; and, usually, most of the blame could be placed on the accursed thread.

To remedy this part of the equipment the following arrangement has been devised, which operates the shutter perfectly from ten to a hundred feet from the photographer. As shown in Figure One, this consists essentially of an electromagnet operated by flashlight batteries and the required length of electric wire. The writer is even more of an amateur mechanic than an amateur photographer, so doubtless better ways of doing this can be devised; but the apparatus described in the following is simple, and it works.

The camera indicated is a Premo No. 12 with an F/6.3 Kodak Anastigmat lens and a Kodamatic shutter; but the mechanism probably could be adapted to any camera with this type of shutter. First a thin piece of wood 1¼″ x 3/16″ x 6″ is put directly on top of the tripod. The center screw of the tripod goes through this piece of wood and into the female thread of the camera itself. On the side of this strip of wood, and in a vertical position, is nailed another piece 2½″ x ¼″ x 3″ with the 3″ edge flush with the top, and one end flush with the outer end of the first piece. A small block is nailed in the right angle between these two to serve as a brace. To this vertical piece is attached an electric buzzer such as is used in residences. This is shown in Figure Two.

Since, for our present purpose, a single movement of the vibrator or "armature" is necessary, the contact points of the buzzer are removed and each end of the wire on the magnet connected directly to the binding-posts. Whenever the battery circuit is closed through the buzzer, the armature is pulled down to the top of the magnet-core. All that remains, therefore, is to attach a small wire to the armature and extend it up to the exposure-lever of the shutter, so that when the armature is pulled down it will transmit this motion to the exposure-lever. This is readily accomplished by filing a small groove on each edge of the armature—which is about ⅝″ wide and 1/16″ thick—near the free

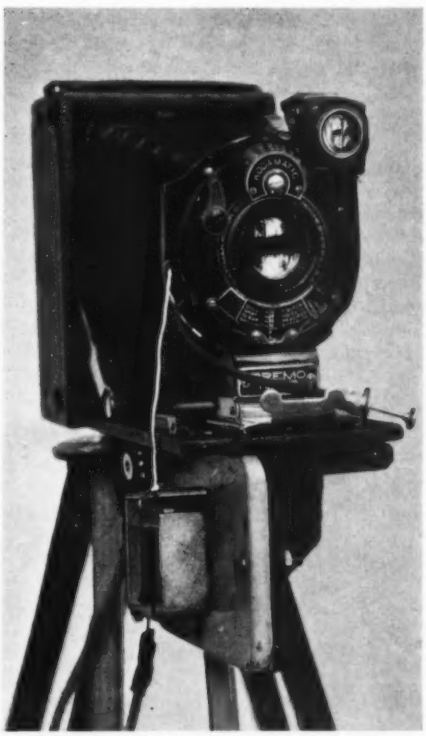


FIGURE 2 F. D. HARTFORD

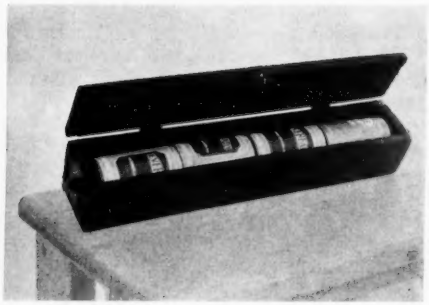


FIGURE 3 F. D. HARTFORD

end. A small wire is then twisted around the end of the armature through these grooves and one end extended upward to the exposure-lever. The upper end of the wire is carefully bent to hook into the hole in the exposure-lever, so that the latter will be tripped when the armature is clear down on the magnet-core. The buzzer-cover can next be snipped out to clear this wire, and the apparatus is complete.

If it is especially important to get "hair-trigger" action on the shutter, it will be observed that the shutter-lever can be depressed slightly before it trips and in this position will "snap" on the slightest movement of the buzzer. Since the camera will usually be set for six feet, or with a portrait-attachment, the buzzer should be so placed under the shutter that the wire to the exposure-lever will be about vertical.

To supply the necessary electric current for the buzzer, the writer found that four batteries such as are used in hand flashlights are sufficient. Accordingly, the wooden case shown in Figure Three was made. The top terminal extending down through the end of the box is an ordinary brass-screw cup hook. The small brass-button on the top of the upper battery comes in contact with the end of this screw-hook. The bottom terminal is a friction cupboard-door catch with the "catch" end inside of the battery-box. The spring in the catch allows the batteries to be inserted in the box, and then forces them into contact one with another. Thus, one terminal of the batteries is at one end of the box and the other at the other end. For the electric wire connecting the camera and the batteries the writer has found the regular double twisted lamp-cord to be suitable.

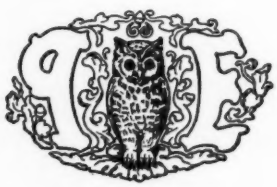
In operation, the camera is set in the desired position, the wires attached to the binding-posts of the buzzer, the camera carefully focused, and the shutter set. The photographer takes the other ends of the wires—which usually need not be over sixty feet long—and the battery-box and hides himself "down wind" to watch proceedings. The end of one wire is wound around one terminal of the battery, and at the proper instant the other wire is brought in contact with the other terminal and the deed is done.

The cost of this apparatus is moderate as the following list indicates:

Buzzer	$ .60
Batteries	.70
Wire	.90
Hardware	.15
	$2.35

Armed with a small saw and a hammer, the amateur can complete the apparatus in two or three hours.

In action, the photographer may find that a camp-stool or a cushion will not be amiss in his blind. Also gloves and mosquito-netting are advisable, in case insects are troublesome. A pair of opera-glasses may also be useful to watch the quarry, so that the snap is made at just the proper instant. It must be remembered that opportunity comes but once in this pastime. Last, but not least, a full measure of patience is a desirable attribute of the enthusiast who would capture wild creatures for his album.



Desert-Photography in Chili, South America

PHILIP O. WESTON

PHOTOGRAPHY on the desert—is it any more difficult than it is in any other place? Well, I think that it is; let us start at the beginning, and I will try to explain. My first camera was a 2¼ x 3¼ Kodak, no special lens; and at home, once in a while, I would take it out, buy a couple of rolls of film, snap a few pictures, take the rolls to the corner drugstore, and twenty-four hours later get my prints, if there were any that could be printed.

When I came to Chile, I included in my baggage my camera and a few rolls of film. On the way down, I used six or eight rolls in the Panama Canal, and at places where we stopped, and then threw them into my grip until I should arrive at the corner drugstore. The boat finally arrived in Antofagasta, the nearest approach to a city that I was to see for three years. It is a desolate, small town. Rain is almost unheard-of along the northern cost of Chile, and Antofagasta is no exception. It is the outlet, or one of the outlets, for Bolivia and the interior. It is a large nitrate seaport and a copper port. From it are shipped about three hundred and fifty million pounds of copper each year. It has a few parks, where trees and grass are kept alive by continual watering; a half-dozen dirty hotels, *costumbre de Chile;* the English quarters, a couple of clubs, a race-track; and it is the beginning of the F. C. A. B. narrow-gauge oil-burning railroad which terminates at La Paz, Bolivia.

As to its photographic conveniences, it has "La Casa Hans Frey", a German concern which carrries a stock which no one even in his most lucid dreams could use; and everything ordered must be sent for from Santiago, which in turn sends to Germany, to get the before-mentioned material which never arrives, but is always promised.

The other place is Lemare's, a Kodak agency which carries a very small stock of useful material, and which also sends for supplies, no one knows where. After innumerable delays something arrives, but never that which was ordered.

The train for Calama, the nearest town to Chuquicamata, leaves Antofagasta at 7.30 in the morning, and one sits in a seat about two feet wide and breathes foul air and desert dust for about fourteen hours through a country which is hilly and rolling, and always up-grade, white and glaring—not a tree, not a house, except at the small stations where the train stops for water and oil and a passenger, now and then, from the nitrate companies. The water is piped in two pipe-lines from Bolivia, three hundred miles distant, following the railroad to the coast. The desert through which we are traveling is called the Atacama Desert, and is absolutely the driest desert in the world, more so than the Sahara. Imagine making pictures where from 7.30 A.M. until 6 P.M. there is not the least resemblance to a shadow! where even the stations, the train, and the houses, whenever there are any, are all the same color—a dull dusty gray, and dirty adobe! where one can look hundreds of miles in any direction and not see a single sign of life, animal, vegetable, or human, except at the mines and railroad stations! Where can one get contrast, shadows, and soft lighting for pictures? I don't know—there just isn't any, or, as they say here, "No hay". Finally, after what is the worst and most trying ride in the world, one arrives at Calama, where the train is ushered into the station by the loud ringing of a bell and a gentleman with a green flag stalking majestically in front of the train—why, no one has ever found out; but without the green flag, the train just cannot enter the station! One climbs out of the train, stiff and sore, and is met by one of the Company's cars, a 1912 Locomobile, and a man who drives it as if he were a hurricane going some place to happen. From now on one must speak of distances in kilometers and meters instead of miles and feet.

The "Loco" climbs six hundred and fifty meters to the mining camp of Chuquicamata, a distance of twenty-four kilometers from Calama, in a length of time that would make De Palo blush with shame; and one is shown his room and is informed that there is a restaurant near the club in which one may eat if he wishes; if not, he starves to death.

After a wash-up we walk to the resturant, and immediately discover that an altitude of 10,000 feet, which is the altitude of Chuquicamata, is very hard on the lungs and heart.

Morning comes, and we saunter forth to see our home for the next three years. It surely isn't anything to write home about—the same eternal sunshine, bright blue sky, and not a cloud. In Chuqui the sky is bright blue for ten out of the twelve months. Everything is without contrast—no trees, no grass; the houses the same color as the ground, and all made of gray calamine—no, surely not the place for pictorialists,

or, in fact, for the camera worker of any kind, whether skilled or unskilled.

A few days after my arrival, I thought of my rolls of film, and began looking for the usual photo-finishers; but, although a very modern mining-camp, Chuquicamata hasn't any place.

Well, the rolls had to be developed; so after many questions, I finally found a chap who had the sub-agency for "Casa Hans Frey". From him I purchased three cardboard trays, some hypo, and some M. Q. developer. The hypo cost ninety cents gold a pound, and the M. Q. twenty-five cents a tube—no, surely, we are not in the good old U. S. A.

That night I got out my trays, hypo, and developer, and began to work. The negatives came out terribly, the principal reason being that the water in Chuqui is so laden with mineral and saltpeter and salts that boiling is an absolute necessity; and for really good results one must purloin distilled water from the locomotive department—water that they use for their storage batteries. All this about water, I learned after a great many poor negatives.

A few weeks later, I was finally talked into buying an Ica 6 x 9 cm. camera with Zeiss Tessar F/3.5 Anastigmat lens with focal-plane shutter, four plates, and film-pack. Then came the question of film-packs and plates. I ordered twelve dozen plates, and after about six weeks of waiting they came. Up to date there hasn't been one single plate that has been good. No—they were not packed for the tropics and damp weather! Although this part of Chile is the driest in the world, all goods, to get here, must go through the tropics, dampness, and intense heat. Finally, after much shopping, writing, and many pesos spent—the peso being the means of exchange here—I was able to find some real Eastman film-packs, which were fresh and in good condition. I managed to get hold of thirty-five dozen, which have lasted me so far; but I have already begun my search for more, as my supply is nearly gone. Next came the question of developers and hypo. Twenty-five cents a tube and ninety cents a pound was all out of reason; so I journeyed to the chemical laboratory of the Company and after much talk managed to purchase a few necessary chemicals. I found, much to my delight, that they had a full barrel of plain hypo—why, I don't know; but there it was, and I decided all was not lost. The chemicals were a little old, as is everything down here; but then, they were chemicals, and they worked, and one must not be fussy in Chile—at least not on the pampa, one hundred and fifty miles from the nearest town and 10,000 feet above sea-level.

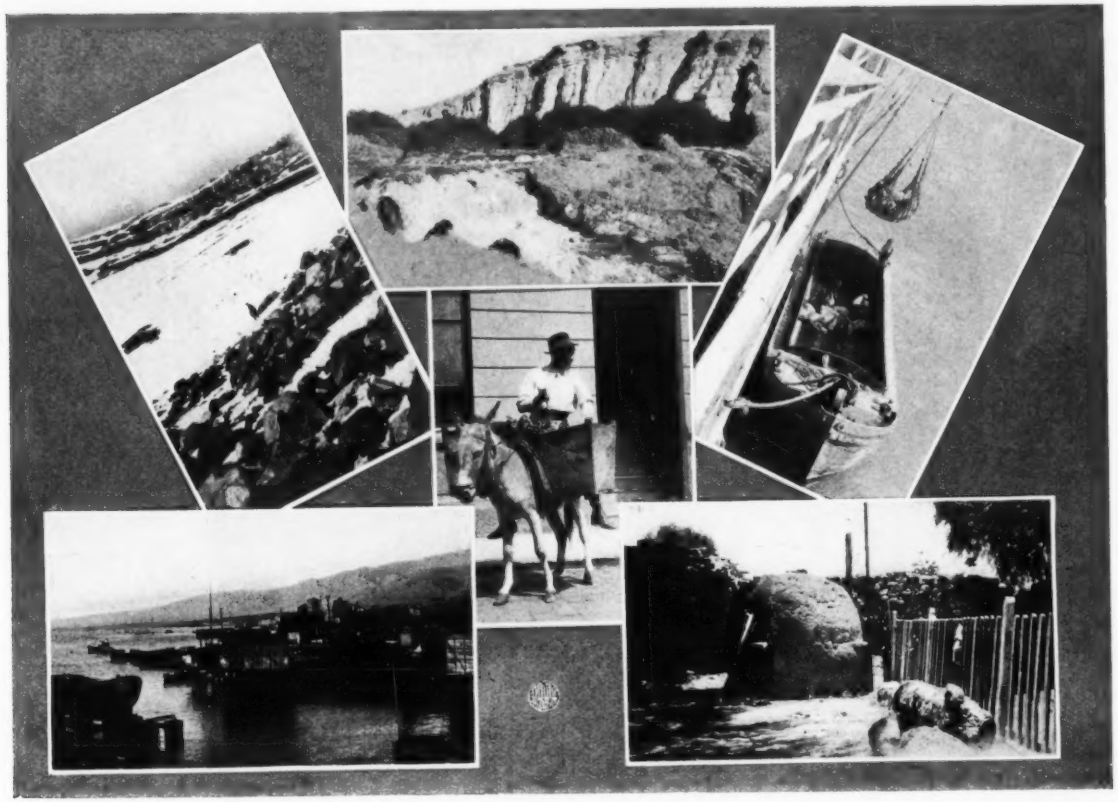
Papers are very difficult to get here, especially American papers, and very, very expensive; German and European papers are easier to get, and not so expensive; but then it is not like home by any means. Chile has about thirty per cent. duty on all photographic materials; and one getting a shipment of sensitive materials through customs is very likely to have them all spoiled by the officers opening up the packages of films, plates, and papers just to see what it's all about. Which reminds me of a true incident that happened in Bolivia. A couple of chaps were taking a vacation in Bolivia; and one fellow, having used several rolls of film, decided to send them by mail back here, to have a friend develop them for him. He packed them and mailed them in the post-office in the small Indian town in which he was stopping. Several hours later he had reason to walk past the post-office and, upon glancing in, was horrified to see the post-office officials unrolling all the rolls of film and holding them up to the light to see if there were any pictures on them, then carefully rolling them up again and putting them with the mail for Chile. He sent no more rolls by mail!

Dust is another thing that plays havoc with one's negatives; the air is filled with fine dust from the desert, and it will penetrate almost anything. Negatives and prints dry very quickly here, but usually with a very fine layer of dust on them. So far, no one has been able to overcome this difficulty. Also, one must be very careful of one's cameras, as they require cleaning about every three days, especially in Chuquicamata, where the dust carries so much copper-sulphate and nitrates, which seem to have a very deteriorating effect on shutters, bellows, and other camera parts.

Exposure at this altitude, with intense sunlight and no shadows, is very difficult, and I have found that it must be greatly shortened. Some sort of a good exposure-meter is almost a necessity.

Another necessity for even ordinary pictures is a color-filter, where the distances are so great and there is so much haze and dust in the atmosphere.

Film here, as I mentioned before, is difficult to get hold of, and very seldom fresh. All of our roll-film comes hermetically sealed in tins, which helps immensely, as, sealed in that way, it can be many months old and still be good. Since being down here I have purchased a small panorama camera, after which came the question of films. I ordered some from Antofagasta and was much surprised to receive them in about a week's time—but surprised was no name for it



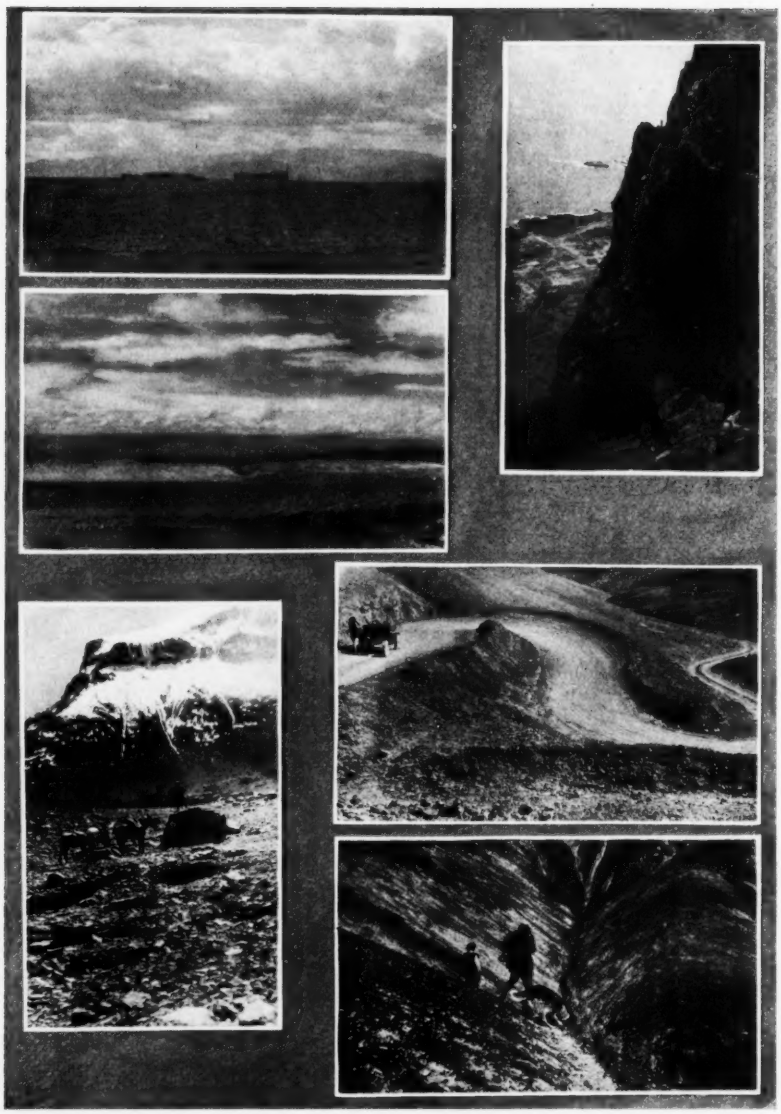
Eternal Snow, Mt. San Pedro
Antofagasta Waterfront

Rio Loa Canyon
El Comerciante, Lima, Peru

Loading Cargo
Indian Oven, Chui Chui

GROUP ONE

PHILIP O. WESTON



La Hacienda
Clouds, Atacama Desert
On The Trail, Bolivian, Andes

Tocopilla Coast
The Hog's Back, Atacama Desert
Mountains and Gullies of the Desert

when, upon opening the package, I discovered on each roll the expiration-date of March, 1919! It was only about nine years old! The film was worthless.

Up to date I have not been able to get film for panorama cameras in this country. My next adventure was in enlarging. After writing and asking the prices of enlarging-cameras down here, I finally decided that I either had to make one or go into bankruptcy to buy one; so, finally, I made one that answers the purpose, using a huge tin-lamp house with a 1,000-watt lamp, an old view-camera bellows, ground-glass of my own manufacture (by means of emery and window-glass), and the lens from my small Graphic type of Ica camera. Strange to say, it works perfectly.

The general subject material for pictures here is mostly technical, as there just isn't anything else to photograph.

We here at Chuqui get a two-weeks' vacation every six months, and then we either take a trip to the little Indian town and near-by snow-covered mountains or to the coast—most generally the latter, as one needs sea-level after living at this altitude for six months.

Tocopilla is our nearest town on the ocean. There is situated the Company's power plant, which transmits all of the power to run the mine and the plant over high-tension lines of 110,000 volts, up across the desert for one hundred and twenty kilometers.

Tocopilla, like Antofagasta, is absolutely barren, as it never rains. The gardens and flowers in the American and English quarters are kept alive by the continual use of the hose. Tocopilla's water-supply is distilled sea-water. One can reach Tocopilla only by motor-car across the desert over the Company's road, as no trains run to Tocopilla from Chuquicamata.

The temperature, even at this altitude, is intense during the day; on one of my inland trips to a little town called Toconao, about one hundred kilometers from camp, the thermometer which I carried tied to my camera-case registered 141½ degrees Fahrenheit at 1.30 in the afternoon. This temperature is surely not inducive to good negatives and prints.

But then—only one more year, and I shall be home where one can include trees, water, and shadows in one's poor attempts at pictorial photography; also where one can get fresh plates and films and fresh chemicals and supplies; where the water is clean and pure; where one doesn't have to ride a mule by one hand for two or three days and carefully hold "La Maquina Fotografica" by the other and keep it from jarring to pieces, in order to get near enough to the snow-covered mountains to make pictures.

But then it's lots of fun and, perhaps, some time I may get a really good picture down here in sunny Chile. I hope so, anyway.

In finishing, I wish to add—as you have probably noticed if you, my readers, have waded through this article thus far—that I am as much an amateur when it comes to writing as I am at photography; but as I said before, it's lots of fun, and I would not give up being an amateur photographer for anything. Some day, perhaps, I shall make a picture that other people will enjoy looking at; or, as one of the Spanish proverbs says, "Hoy para usted, mañana para mi"—in English, "Today for you, tomorrow for me".

Folding Lens-Hoods

JAMES LEE

MODERN anastigmat lenses are constructed to work at comparatively wide angles; but, due to the demand for compactness of mounting, no provision is made for cutting off the surplus light when the lenses are used on a smaller plate-size than normal. In order to appreciate the amount of this surplus illumination, consider a convertible anastigmat, used regularly on 4 x 5, but capable of sharply covering 8 x 10. In this example, three times the volume of light that is used by the plate is thrown against the bellows and various parts inside the camera. Naturally, a considerable part of this unwanted light is reflected to the plate, causing a loss in brightness of the image, and, in many cases, fog. The use of a lens-hood, then, is indicated, in order that as much as possible of this surplus light may be cut off before it reaches the lens. When using a telephoto-lens, or when working against the light with an ordinary lens, a hood becomes an absolute necessity.

Many varieties of lens-hoods have been devised by ingeneous photographers; but most of them are open to some grave objection. The round pieces of garden hose and sewed-up shoe-leather cut off an indeterminate amount of light.

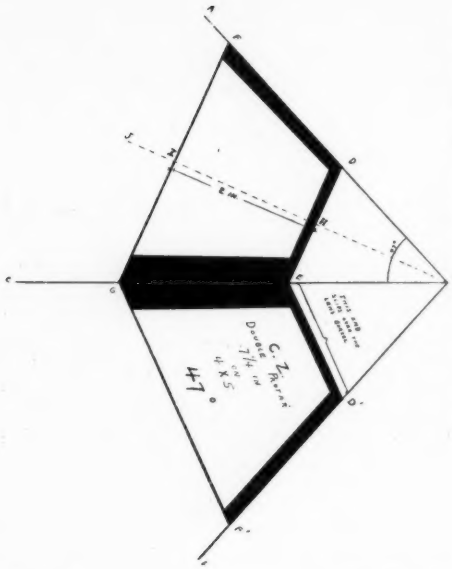


FIGURE 1 JAMES LEE

If not made strong enough, they sag; but, if made too heavy, they are difficult to adjust. The collapsible drinking cup with the bottom cut out is not much better, for the friction of the sections soon wears off the black paint from the inside, and accurately cutting and seating is a job for an expert machinist. Folding lens-hoods of the camera-bellows type may be purchased ready made; but these are rather expensive. For studio-cameras, however, they are the best type. The non-folding wood or metal hood we have always had with us; but this type is what we are trying to improve upon.

The one design which has all the advantages and none of the disadvantages of the others is constructed so that, when open, it will have the form of a four-sided truncated pyramid, its edges hinged and flexible, allowing the whole apparatus to fold flat. Its basic construction is of cardboard, and it is lined with black velvet, which absorbs all but 2 per cent. of the incident light. A hood of this type is strong, light, cheap, portable, instantly on or off, easily constructed by a mere novice, sufficiently rigid when in position to be able to withstand a high wind, and is practically 100 per cent. efficient. It may be tucked under the folding hood of a Graflex, or even stowed between the groundglass and its protecting door of a hand-camera.

Peculiarly, the one material best suited for the purpose consists of the small cardboards that are packed with film and plates, with the slightly lighter-weight cardboards that come with bromide paper as second choice. Other materials are one-half yard of black velvet ribbon, of a width to be determined later, a little glue or mucilage, and a roll of Dennison's Gummed Linen Tape, or passepartout binding ¾ inch wide. Dead-mat black paper is sold by some photographic importers, and may be used instead of the velvet; but it does not make so neat and strong a job. Necessary tools are pencil, paper, ruler, scissors, and a protractor for laying off angles.

In order that the hood may cut off no more and no less light than required, it will first be necessary to determine upon the angle embraced by a particular lens when it is used on a particular size plate. This angle may be easily ascertained from Soret's tables, as given below:

TABLE 1

Diagonals of Common Plates
3¼ × 4¼ = 5.3 in.
4 × 5 = 6.4 "
5 × 7 = 8.6 "
6½ × 8½ = 10.7 "
8 × 10 = 12.8 "
10 × 12 = 15.6 "
11 × 14 = 18 "
12 × 15 = 19.4 "

TABLE 2

Diagonal of Plate Equal to	*Degrees Included*	*Diagonal of Plate Equal to*	*Degrees Included*	*Diagonal of Plate Equal to*	*Degrees Included*
2f + 2/3f	106	f + 1/6 f	60	f − 1/5f	44
2f + 1/2f	103	f + 1/7 f	59	f − 1/4f	41
2f + 1/3f	99	f + 1/8 f	58	f − 1/3f	37
2f + 1/4f	97	f + 1/9 f	57½	f − 1/2f	28
2f	90	f + 1/10f	57	1/3f	18
f + 3/4f	82	f	53	1/4f	14
f + 2/3f	80	f − 1/10f	48	1/6f	9
f + 1/2f	72	f − 1/9 f	47½	1/8f	7
f + 1/3f	67	f − 1/8 f	47	1/10f	5
f + 1/4f	64	f − 1/7 f	46		
f + 1/5f	62	f − 1/6 f	45		

To ascertain from the table the angle covered by a given lens on a given plate, the diagonal of the plate-size is merely translated according to the number of times, and fraction thereof, that it is greater or smaller than the focal length of the lens. For example, suppose that we wish to find the angle covered on a 4 x 5 plate by a 7¼-inch convertible anastigmat. Referring to Table 1, we find that a 4 x 5 diagonal is 6.4 inches; and now, in order to visualise the calculations, let us construct a formula in which

F/ represents the focal length of the lens, the sign ± reading "plus or minus":

Diagonal of plate = F/ ± some fraction of F/.
Substituting,

6.4=7.25—.85
=F/—.12F, or 1/8 F/.

Referring to Table 2, we find that the angle corresponding to F/ — ⅛ F/ is 47 degrees. This, then, will be the angle used in the construction of our hood. Similarly, the angles included by the 11½ and 14-inch elements of the convertible lens will be about 30 and 25 degrees, respectively. The angle of view of any lens may be found in the same way from Table 2, which has a range covering extreme wide-angle to high-power telephoto-lenses. A lens-angle table is extremely useful when choosing a suitable wide-angle lens, and will come in handy in many kinds of commercial work.

If the reader has no particular love for mathematics, and is not certain of the accuracy of his answer, the angular coverage of the lens may be ascertained graphically by drawing the paths of the rays from the lens to plate, actual size, or to scale, and measuring the resulting angle with the protractor. This method may also be used to check up on the mathematical result. Variations of a few degrees will not affect the proper working of the hood, since few possess the skill necessary for very fine fitting; and, besides, such hair-splitting is nullified when the lens is racked out to focus near-by objects.

To proceed, lay off the required angle *ABC* in the illustration—in our case, 47 degrees, using a protractor for this purpose. Now measure the diameter of the lens, and draw the line *DE*, the same length as the diameter. Determine now upon a convenient depth, *H–I* for the hood. This determines the correct width for the black velvet. If much working against the light is contemplated, the hood should have a depth of not less than two inches, though the depth depends in a great measure upon the size of the lens. It should be noted that, no matter what the depth, no part of the picture will be cut off, if the hood is correctly calculated as explained.

Out of cardboard, cut four pieces identical with *FDEG*, and cut four pieces of velvet a trifle smaller along the sides *F–D* and *E–G*. Be sure that the selvedged edges lie along *F–G* and *D–E*. Now fit two of the cardboard sections together so that their similar sides will be adjacent, as in the illustration, and fasten together with a strip of the gummed linen-tape, creasing the tape before sticking, in order that the hinge so formed may have free play. Stick a piece of tape on the other side, after having creased it the opposite way, and trim off all rough edges. Fasten the remaining sections to each other; but do not close. Instead, crease a piece of tape as before, and stick half of it along the edge of one of the end-sections. This will leave half a piece of tape projecting out from an end section; and starting with this section, glue on the four pieces of black velvet, being careful to keep the glue away from the velvety surfaces. This will not be easy unless the hands are washed after gluing on each section

Glue only half the last section of velvet, which should be placed on the first cardboard taken up, if directions have been followed, and opposite the section having the projecting piece of tape as described in the preceding paragraph. Bend the joints now before closing, in order to be sure of free play. Lift up the free half of the last section of velvet, and, slipping the free tape underneath, stick it tightly. Stick a corresponding strip of tape along the outside of the joint, and glue tightly the unglued half of the last piece of velvet. Afterwards, stick protecting strips of tape over the edges where the hood fits on the lens, as illustrated, in order to protect the velvet from buckling when the hood is slipped on and off the lens-mount. It should then be put away to dry, and, when dry, opposite edges gradually worked until the whole folds perfectly flat and opens with ease.

Most shutters have permanent projecting flanges, so that when single elements of convertible lenses are used in proper position behind the lens, a lens-ring is screwed to the flange, in order to cover up the reflections from the screw-threads. The hood can easily be slipped over this lens-ring. If a filter is to be used, it may be fitted on the lens inside the bellows. If the shutter has no projecting flange, but presents a perfectly smooth surface when the front lens element is removed, the hood may be held firmly in place by fastening light rubber-bands to top and bottom segments of the hood by means of strips of the gummed linen tape. The top rubber may be slipped over the top of the front standard, and the bottom one under the plate-bed of the camera, and the hood will then be held firmly in position by the light tension of the rubber bands pulling in opposite directions. This method may also be employed by photographers unfortunate enough to be addicted to square-light filters which cannot be slipped on the lens inside the bellows.

When completed, the hood should be neatly marked with the angle embraced, size of plate, and lens with which it is to be used. Do not make the mistake of using a 4 x 5 hood when the lens is later transferred to a larger camera.

MISCHIEF
DAISIE B. CHAPELL
HONORABLE MENTION—PORTRAITS

EDITORIAL

The Lure of Scenic Beauty

THERE must be considerable potential satisfaction in the enjoyment of beholding such an impressive scenic wonder as the Grand Canyon of Arizona. Persons who have gazed upon the immeasurable gap of this enormous chasm have held their breath in awe when beholding for the first time this, Nature's most impressive creation. An enthusiastic American traveler who happened to pass through Colorado, about fifty years ago, could hardly wait to entertain a Boston Art Club audience with a description of what he beheld in that veritable wonder land. Now what interests us Editors of a publication devoted to illustrated descriptions of such impressive scenic wonders is that camerists do not appear to evince much desire to make their friends at home acquainted with America's sources of scenic beauty. What a pictorial treat an adequately illustrated camera-story of this rarely-visited wonderland would be! And what a rare opportunity for an appreciative camerist eager to picture such beautiful pictorial subjects!

Picturesque Florida

WHILE visiting Florida last winter, we were pleasantly surprised to meet camerists touring the country in search of novel picture-material. Of course, they got their fill in the cities—St. Petersburg, Orlando, Daytona, Palatka, and Jacksonville, for instance—not to overlook that wonderfully picturesque river, the Oklawaha, with its shores fringed with the drooping, mass-laden branches of time-worn trees. Sometimes our boat would pass right through masses of overhanging moss sweeping the deck of our little excursion-boat; huge, lazy alligators, basking in the broiling sun, would clumsily slide into the water at our approach. Here and there a blue heron—an egret or long-legged crane—met the eye. Our camerists were so fascinated by these strange sights that they forgot to use their snapping ability, and PHOTO-ERA will be deprived of pictures novel and wonderful to behold. But our readers need not despair. Some kind and thoughtful soul will be sure to remember the Editors with some personally-made snapshots secured on Florida's scenically beautiful river, although Mr. Thomas S. Carpenter, several years ago, contributed to these pages a superbly illustrated article on the alluring beauties of hanging Spanish moss in Florida woods—with the alligators left out! In certain Floridian cities this graceful hanging moss was deemed a kind of nuisance, and telephone and telegraph wires as well as trees were cleared of its annoying grasp. Well, like other familiar and time-worn landmarks, this long-familiar tree-moss must yield to the exigencies of modern progress. Camerists of the artistically picturesque should be on the alert and secure their artistic records before it is too late.

Advice to Budding Writers

IT is not given to every camerist to express himself as ably with the pen as with the camera. In the past many years, PHOTO-ERA has received many contributions from enthusiastic writers whose articles have been poorly expressed and badly written; and yet the ambitious writers hoped to compete with such experienced and authoritative men as William S. Davis, F. H. Hodges, and others. Good writing is an art to be cultivated, and one will be amply repaid for the thought and care bestowed upon it. Set down your thoughts clearly, avoiding repetition and verbosity. A stilted style lacks spontaneity; a breezy style is interesting. Be sure of your ground, always remembering that those who read your article may be well-informed camerists, quick to detect technical errors. When the article has been written, read the effort to a reliable, sympathetic, and interested friend, and trust his decision. If genuine, helpful, unbiased advice is sought, in most cases the answer is apt to be encouraging; but should the comments be unfavorable, though sound, the camerist-writer should be grateful, rather than disgruntled. To be sure, one should consult an authority in matters artistic, and not accept the snap-judgment of a layman who is not soundly informed. Should the comments be wholly and deservedly adverse, the writer may be disposed to tear up his effort and try again, or wait until he has acquired the knowledge to write intelligently, with the experience of an expert.

ADVANCED COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Advanced Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $10.00.
Second Prize: Value $5.00.
Third Prize: Value $3.00.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers,* will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded will receive a neat silver cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes may be chosen by the winners, and will be awarded in photographic materials sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books. If preferred, the winner of a first prize may have a solid silver cup, suitably engraved.

No Prize or Honorable Mention pictures are sold, exchanged or the halftone-plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones,* go to the maker of the picture.

All competition-pictures not returned are used to make up the PHOTO-ERA PICTURE EXHIBIT which is sent to schools, libraries, museums, camera clubs, and to responsible organisations for exhibition-purposes, *free of cost.*

Rules

1. This competition is free and open to photographers of ability and in good standing—amateur or professional.

2. Not more than two subjects may be entered, but they must represent, throughout, the personal, unaided work of competitors. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered into competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

3. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations and detail. Prints may be mounted or unmounted.

4. Each print must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately,* giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer, and printing-process. Enclose return-postage. Data-blanks sent at request.

5. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he shall have received official recognition.

Photo-Era Prize Cup

6. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces is sent with data.

7. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right-angles to each other.

8. Competitors who have won three first prizes within a twelvemonth become ineligible to receive prize cups in this competition for *one* year thereafter.

AWARDS—ADVANCED COMPETITION

Subject—PORTRAITS

Closed February 29, 1928

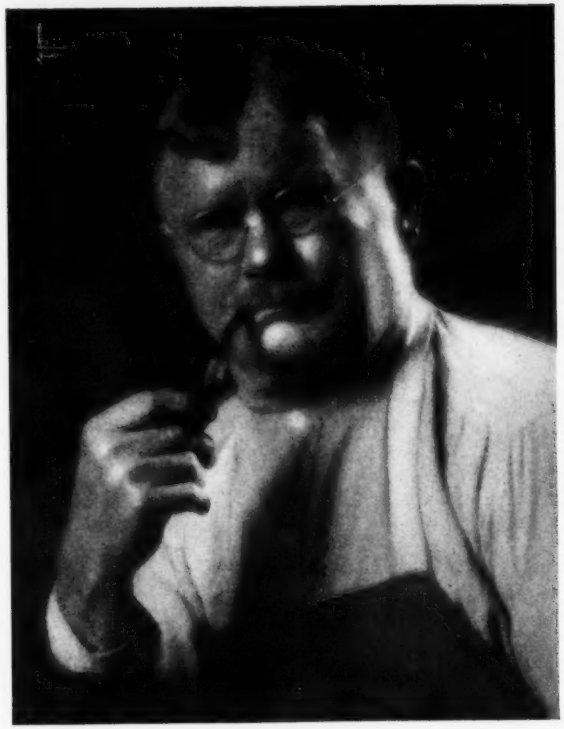
First Prize	J. D. Creegan
Second Prize	M. A. Obremski
Third Prize	Wm. O. Yates

Honorable Mention: F. D. Burt; Daisie B. Chapell; Emily H. Hayden; U. Stephen Johnson; Eleanor F. Jones; K. A. Luther; Bruce Metcalfe; Robert R. Miller; Clifford Norton; Les Ordeman; Chas. T. Ramsden; Dr. Ralph Scobey; Henry Sill; Dr. Max Thorek; Elmer P. Trevors.

JOSEPHINE
JAMES D. CREEGAN
FIRST PRIZE—PORTRAITS

TED — M. A. OBREMSKI

SECOND PRIZE—PORTRAITS



PHILIP — WM. O. YATES

THIRD PRIZE—PORTRAITS

SUBJECT FOR NEXT COMPETITION

ADVANCED WORKERS

Subjects for Competition—1928

"My Home." Closed January 31.
"Portraits." Closed February 28.
"Indoor-Genres." Closed March 31.
"Table-Top Photography." Closes April 30.
"Artificial Light Photographs." Closes May 31.
"Architectural Subjects." Closes June 30.
"Pictures of Children." Closes July 31.
"Landscapes." Closes August 31.
"Outdoor-Genres." Closes September 30.
"Animal Pictures." Closes October 31.
"Water-Scenes." Closes November 30.
"Vacation-Pictures." Closes December 31.

Architectural Subjects

MANY of our readers have expressed the wish for a competition devoted to architectural subjects. They have insisted, and with reason, that architecture of whatever kind or period lends itself to the pictorialist and to the technician as well. In short, the subject makes a strong appeal from the viewpoint of the engineer, architect, builder, art-lover, and photographer. In this competition we shall adopt a broad conception of the word architecture and what it includes. For example, a massive bridge, with towers, decorations, and abutments in stone might be included as subject-material for this competition. Again, a Colonial doorway would be eligible for entry, an archway, or a close-up of a façade. In fact, we wish to make it very clear that it is not necessary to submit prints of government buildings, banks, museums, and various public buildings, if there are other appropriate subjects available.

There is one point which it may be well to make. For some unknown reason many workers assume that an architectural subject must include the whole of a building. This is not true. Some of the best architectural studies at exhibitions and salons are "bits" of architecture—vistas through arches, a gate, a doorway, a column, or a grand staircase featured as the center of interest. Often just a glimpse through the trees suggests more than could be revealed by including every detail of a government building or monument. In the example on this page we have a suggestion which identifies the building convincingly, yet it includes a pictorial appeal which does not depend upon a display of the whole structure to make it impressive. Far better to select a part of a building and photograph it to advantage than to attempt to include too much, and lose the appeal of simplicity, force, and pictorial value and beauty.

A. H. BEARDSLEY.

THE BOAT-HOUSE—PRINCETON — L. J. CREEGAN

EXAMPLE OF INTERPRETATION

BEGINNERS' COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Beginners' Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $7.50.
Second Prize: Value $3.50.

Honorable Mention: (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers*, will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded, will receive a neat silver-cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the half-tone plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones*, go to the maker of the picture.

Rules

1. This competition is open only to beginners of limited experience with practical camera-activity, and whose work submitted here is without any practical help from friend or professional expert.

2. Workers are eligible so long as they have not won a first prize in this competition. Winners of the first prize automatically drop out permanently, but may enter prints in the Advanced Class at any time.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered in competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

5. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations.

6. Each print entered must bear the maker's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately*, giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, exposure, developer and printing-process. Enclose return-postage in this letter. Data-blanks sent at request.

7. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right angles to each other.

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

THIS is to certify that an Award of PRIZE
is hereby given to the picture entitled

entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed 192

Editor

PRIZE-WINNERS' CERTIFICATE

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

THIS is to certify that an Award of *Honorable Mention*
is hereby given to the picture entitled

entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed 192

Editor

HONORABLE MENTION CERTIFICATE

AWARDS—BEGINNERS' COMPETITION

Subject—MISCELLANEOUS

Closed February 29, 1928

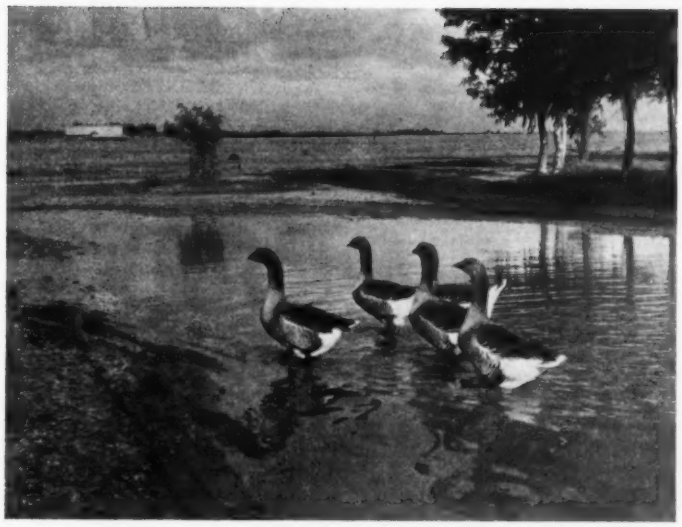
First Prize . . . . . Mrs. W. F. Eldridge
Second Prize . . . . . Edward Alenius

Honorable Mention: Wm. J. Allen; A. W. Clark; I. D. Conklin; F. E. Crum; Alma R. Lavenson; Edward McMahon; Helen E. Miller; A. G. Niido; E. W. Porter, Jr.; W. H. Smith; Marjorie Joy Wilson.

First Prize

BEGINNERS'
COMPETITION

MISCELLANEOUS



AFTER THE RAIN — MRS. W. F. ELDRIDGE

HOMEWARD BOUND — EDWARD ALENIUS

Second Prize

BEGINNERS'
COMPETITION

MISCELLANEOUS

EXPOSURE-MAKERS' COMPETITION

Closing the last day of every month
Address all prints to PHOTO-ERA MAGAZINE, Exposure-Makers' Competition
Wolfeboro, New Hampshire, U.S.A.

Prizes

First Prize: Value $5.00.
Second Prize: Value $2.00.

Honorable Mention (*a*) Those who win an Honorable Mention Award and are *not regular subscribers* will receive PHOTO-ERA MAGAZINE for six months with the compliments of the publishers.

(*b*) Those who win an Honorable Mention Award and are *already subscribers, or have been subscribers,* will receive an Honorable Mention Certificate. Those who win ten of these certificates and send them to us to be recorded, will receive a neat silver-cup, suitably engraved. There is no time-limit. However, ten certificates must accompany all requests for the cup.

Prizes, chosen by the winner, will be awarded in photo-materials, sold by any dealer or manufacturer who advertises in PHOTO-ERA MAGAZINE, or in books.

No Prize or Honorable Mention pictures are sold, exchanged or the half-tone plates sold without permission, in writing, from the maker of the print. Proceeds of all sales, *excepting halftones,* go to the maker.

Entries are not eligible to Trophy Cup Contest.

Rules

1. This competition is open *only* to amateur photographers who for lack of time or equipment *cannot do their own photo-finishing.* Each contestant must compose his own picture and make the exposure without aid from friend or professional.

2. The name of the photo-finisher must appear on each print submitted. It will be printed under each prize-winning or Honorable Mention picture published.

3. Prints eligible are contact-prints and enlargements up to and including 8 x 10 inches.

4. Prints representing no more than *two* different subjects, for any one competition, and printed in any medium except blue-print, may be entered. Prints may be mounted or unmounted, as desired. Subjects which have appeared in other publications are not eligible, nor may duplicate prints be sold, or entered in competitions elsewhere, before PHOTO-ERA MAGAZINE awards are announced.

5. Prints on rough or linen-finish surface, and sepias, are not suitable for reproduction, and should be accompanied by smooth prints having the same gradations.

6. Each print entered must bear the maker's and photo-finisher's name and address, the title of the picture, and the name and month of competition, and should be accompanied by a letter, *sent separately,* giving full particulars of date, light, plate or film, make, type and focus of lens, stop used, and exposure. Enclose return-postage in this letter. Data-blanks sent at request.

7. Prints receiving prizes or Honorable Mention become the property of PHOTO-ERA MAGAZINE, unless for special reasons. This does not prevent the photographer from disposing of other prints from such negatives *after* he has received official recognition.

8. Unsuccessful prints will be returned only when return-postage at the rate of one cent for each two ounces or fraction is sent with data.

9. Prints should be carefully packed between two layers of cellular board so cut that the corrugations run at right angles to each other.

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

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in the PHOTO-ERA MAGAZINE Monthly Competition

which closed .192.

Editor

PRIZE-WINNERS' CERTIFICATE

PHOTO-ERA MAGAZINE
The American Journal of Photography
Wolfeboro, New Hampshire, U. S. A.

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entered by

in the PHOTO-ERA MAGAZINE Monthly Competition

which closed. 192

Editor

HONORABLE MENTION CERTIFICATE

AWARDS—EXPOSURE-MAKERS' COMPETITION

Subject—MISCELLANEOUS

Closed February 29, 1928

First Prize . . . . . Nan C. Reeves
Second Prize . . . . . Merion Hope

Honorable Mention: Mrs. Grace W. Farnsworth; James G. Johnson; R. E. Midgley; Henry Nyman; Lois Snelling.

First Prize

EXPOSURE-MAKERS' COMPETITION

MISCELLANEOUS

Photo-finished by
Frank Reeves
Fort Worth, Texas

VERNAL FALLS NAN C. REEVES

BEDOUINS OF THE DESERT MERION HOPE

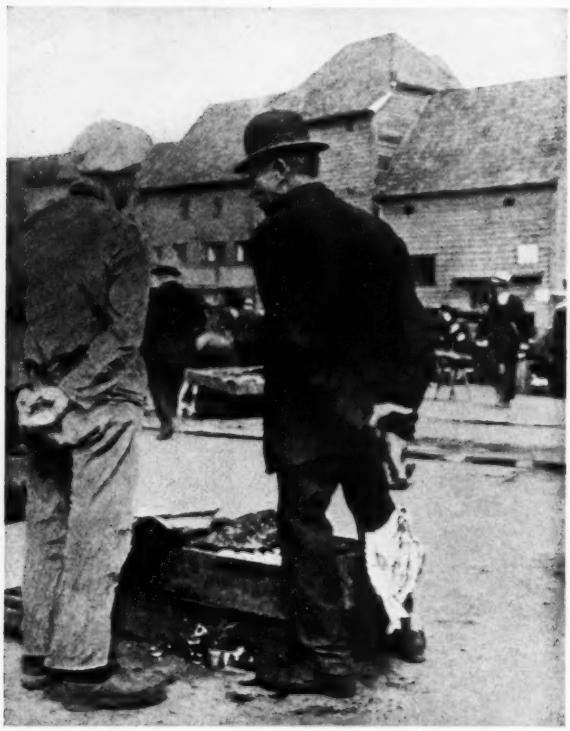
Second Prize

EXPOSURE-MAKERS' COMPETITION

MISCELLANEOUS

Photo-finished by
Piron, Paris, France

OUR CONTRIBUTING CRITICS



NORWEGIAN FISH-MARKET — HAROLD H. SEATON

THE PICTURE CRITICISED THIS MONTH

Data: Made at Tromso, Norway; July 2 p.m.; light, fair; 10 x 15 cm. Ica Camera; Zeiss-Tessar lens; stop, F/8; 1/50 second; plate; developed in Amidol; enlarged on P. M. C. Bromide.

Whoever sends the best criticism (not over 200 words) before the last day of the current month, will receive from us a three-month subscription to PHOTO-ERA MAGAZINE.

The winning criticism, in our opinion, is the first one printed below. Criticism should be helpful and courteous.

Seven Criteria for Critics

(1) Background and Sky. (2) Foreground and Figures. (3) Main Interest vs. *Distraction. (4) Gradations and Tone Values. (5) Lines and Masses. (6) Atmosphere and Interpretation, and (7) Photographic Technique.*

THIS interesting scene needs a little more emphasis on the objects of interest. I should like to make it over like this: Sky darker, the peaked roof emphasised by cutting off one-quarter of an inch from right margin, the larger figures in middle distance being left out, the others subdued.

As to the two principal figures, they should make, with the box of fish, a central group placed a little farther from the camera, with more room at the left and bottom and a trifle less at the right. The two men might be stooping to look into the box and more nearly facing the camera and each other. They could be placed part way around the box, but not where it would hide their picturesque shoes. If the corner of the fish-box were shown projecting into the foreground, it would steady the composition. The left-hand man is too nearly the color of the building. His blue (?) clothes might have been made to appear darker by using a color-screen. To sum up, we want to see more of the men and more of their fish, because we already see enough to excite our interest.

ALICE ROPES.

A CANADIAN SUNSET — W. J. CLEMENS

YOUR CRITICISM IS INVITED

Data: Made near Blairmore, Alberta, Canada; October, 1925; gray day; Eastman 3-A Kodak; Anastigmat lens, F/7.7; used at full opening; 1/25 second; roll-film; Velox print.

THE title, "Norwegian Fish-Market", is obviously a misnomer. A juster title would be: "A view of a Man's Back". There is nothing convincingly Norwegian about the picture, and fish are not very much in evidence, except the one dangling behind the foreground figure's back.

Now, if the left-hand foreground figure were eliminated, we should have a much more artistic picture. In a picture in a high key like this one, naturally a dark object is a strong accent. If you take the trouble to notice, you will see three dark objects in a triangular form; the apex is in the foreground, and the base is furnished by the dark men in the middle distance—a perfectly artistic arrangement, if you want to draw attention to the apex.

Assuming that such was the author's object—eliminating the lightish extra figure in the foreground also—the next criticism is that there is a lack of foreground, which, of course, is bad from an artistic point of view. A minor criticism is that the man in the foreground in light clothes seems to have been cut off rather suddenly; part of his arm and shoulder is gone, thereby producing a sort of "jar" on the nerves of the spectator.

If the author was trying to produce an ordinary snapshot, well and good; let it go at that. If he was trying to interpret a scene—to convey to the beholder a just and complete rendering of an idea—the author has obviously failed. Assuming that the latter was his object, the present disaster might have been avoided by first looking at the scene on the groundglass before making.

E. L. C. MORSE.

IT is not apparent whether "Norwegian Fish-Market" was made with picturesque aspirations, or in order to portray an elusive pictorial setting through the medium of the camera. While traveling, unfamiliar native scenes sometimes appear very alluring; but, on closer acquaintance, they are familiarly mediocre and not sufficiently artistic in their grouping for pictorial representation.

The exposure in this case is ideal, as there are no harsh, contrasty tones, and each harmonises with the other. The second figure on the left distracts the eye, affects the balance, and interferes with the triangular form consisting of the three heads, the distant figure being included.

To stabilise the title, should not the actual transaction of fish-selling be shown? As represented, we do not know which is the buyer; and the spirited atmosphere of the market is lacking. We are not even positive whether fish is sold here or not, as the one illustrated may have been bought elsewhere. The two foremost figures are placed pleasingly. Are they in a deep conversation on fish and market-conditions?

JAMES A. BELL.

Science is a Wonderful Thing

AN amateur photographer, who had ventured to take some pictures on a farm without permission, for the "eddification" of *The Cleveland Photographic Society*, was met unexpectedly by the owner of the farm, who asked him to explain his presence.

"I've just been taking a few motion pictures of life on your farm," he faltered.

"Hev ye?" the old farmer responded, "an' did ye ketch my hired man in motion?"

"I sure did." (This very bravely.)

"Ye did!" the farmer exclaimed. Then he shook his head reflectively. "Well, well," he remarked, "science is sure a wonderful thing!"

Thru the Darkroom Door.

OUR ILLUSTRATIONS

WILFRED A. FRENCH, Ph.D.

RARELY has the reviewer approached his task more pleasantly than in the present instance. The illustrations of the current May issue are singularly attractive from a pictorial point of view. To begin with, the frontispiece is marked by a distinct and pleasing individuality. The rays of light descending, as they do, from above to the floor of the railway station, attract the eye at once. Mr. Smith is always on the alert for original effects. He has been particularly fortunate in the present instance. It would almost seem that the passengers gathered in the station were unconsciously co-operating with the photo-pictorialist. If it were possible to have a more happy arrangement of the figures, we, for one, should like to be shown. As a technician, Kenneth D. Smith has achieved an eminent reputation, and everyone concerned is to be congratulated.

Data: Series C Graflex; made in April, 1927; 1/5 second at F/2.5 on Eastman superspeed portrait cut-film; development, pyro in tank; enlargement on Old Master Portrait Bromide, buff.

The illustrations supplied by Frank H. Wildung are technically and eminently delightful. In this especial and difficult field of endeavor it is a rare pleasure to find the photographer so pleasingly equipped to meet the demands of such difficult situations.

He who is not captivated by "Wistful" must have a heart of stone, indeed! Mr. Luther has distinguished himself not only in the choice of a winsome model, but has excelled in the delightfully artistic treatment of it. The placement of the figure could not be improved upon, and the lighting is certainly all that could be desired. Unfortunately, the picture is somewhat marred by what appears to be a too liberal application of the lip-stick.

Data: "Wistful"; made in an ordinary room at home; R. B. Graflex camera; 4 x 5; Kodak Anastigmat, focal length 10 inches; stop, F/5; made in August, 11 A.M.; light fair; 2 seconds exposure; Eastman superspeed portrait cut-film; Elon hydroquinone; Velours black; white platino mat; 500-watt light used to produce shadow highlight on cheek and detail in the hair.

"Curly Head", by Henry Sill, page 263, speaks for itself in arrangement, expression, and lighting. What more praise could the artist desire?

Data: "Curly Head"; made in Cleveland; View-camera, 5 x 7; velostigmat lens, focal length 9½ inches; stop, F/4.5; made in February, 5 P.M.; flashlight and daylight bulb exposure; Eastman panchromatic film; pyro metol tank development; Velours black buff platinum mat.

Arthur H. Farrow has always been pleasingly identified with the interpretation of childhood in its various phases. The illustrations on page 267 substantiate this statement. When the lighting in grouped pictures varies in intensity, the photo-engraver can very easily subdue any offending highlights. Of course he is not likely to take this liberty unless he receives specific instructions to do so; for to alter the appearance of the picture in this respect might easily interfere with the point the photographer had in mind. No data.

"Jessie", page 269, has won the beholder by her engaging smile. Technically, the portrait is an enviable achievement, in any way the critical observer desires to analyse it.

Data: "Jessie"; made in Camera Club studio at Syracuse, N.Y.; View-camera, 5 x 7; Gundlach lens, focal length 10 inches; stop, F/6.3; no color-screen; made in January at 4 P.M.; artificial light; 1/25-second exposure; superspeed plate; developed with pyro; printed on Old Master.

The Cuban type "El Mulero", by Charles T. Ramsden, page 271, fully deserves the honor bestowed upon it by the jury, and merits unstinted praise. It is superbly posed, fittingly lighted, and, as an interpretation of a type, serves its purpose admirably. It occupies the picture-space in accordance with art-principles, as represented by the best examples that have appeared in this magazine.

Data: "El Mulero"; made in Guantánamo, Cuba, February, 1926; Eastman film-pack; Goerz Dagor lens, 5-inch equivalent focus; stop, F/11; 1/5 second; clear sky, under a porch; pyro metol developer; Eastman portrait bromide print.

Being arranged in a group, the photo-engraver found it somewhat difficult to do full justice to each individual print by Philip O. Weston, pages 277 and 278. Each exposure evinces technical judgment of a high order. This is obvious by careful scrutiny of the subjects. At present, these illustrations appear to be too brilliantly lighted. No data.

"Mischief", by Daisy B. Chapell, would defy adverse criticism were it not for the unfortunate fact that the artist did not seem to have the requisite distance at her disposal—between the model and the camera. The little girl's feet appear to be out of proportion; and yet, perhaps this feature could not be avoided owing to lack of space. The pose, lighting, and arrangement of toys is as pleasing as possible in the circumstances. Our personal choice of the dog would have been a black one; but probably the artist never gave it a thought.

Data: "Mischief"; made in Stockbridge, Mich.; 5 x 7 studio camera; Darlot lens; large stop; no color-screen; August, 2 P.M.; north light; one second exposure; EK portrait film; pyro; printed on portrait bromide.

Advanced Competition

THAT "Josephine", page 285, by James D. Creegan, received first prize is only to be expected; for every feature that constitutes a pictorial work of art is here delightfully represented. Captious, indeed, is he who would wish anything changed in the way of pose, lighting, and expression. It would be difficult to bestow higher praise than this, and we sincerely hope that we may not be accused of giving undue praise.

Data: "Josephine"; made in living-room interior at Kingston, Pa.; October, 10 A.M.; light, cloudy bright; two windows; one second exposure; Ica camera, 9 x 12 cm.; Heckla lens, focal length 13.5 cm.; stop, F/6.8; Eastman portrait-film; pyro in tray; printed on Eastman portrait-bromide D.

"Ted", winner of the second prize, is well placed in the picture area. The pose and lighting are eminently adequate, although there may be some observer who would give it precedence over "Philip".

Data: Made in studio of Syracuse Camera Club; old 5 x 7 camera; stop, F/8; made at 10 A.M. by artificial light, 3 seconds exposure; Agfa portrait mat; pyro developer; printed on Defender rough buff mat; lighted window used for background.

"Philip" evidently did not make any elaborate preparations for an artistic pose, although in all truth it must be admitted that for complete naturalness it is a winner.

Data: Made in studio with 18-inch Verito lens; par speed film, 5 x 7; enlarged on Eastman Portrait Bromide, buff rough matt.

Example of Interpretation

HERE, on page 287, L. J. Creegan has scored a distinct triumph in every way. In composition, lighting, and balance the picture challenges admiration; and there are many of our readers who would extend a friendly hand congratulating Mr. Creegan upon his success.

Beginners' Competition

THE first prize has been justly awarded to "After the Rain", by Mrs. W. F. Eldridge. Everything that can be imagined from a pictorial point of view has been expressed in the most eminent degree, and the artist probably wishes that she might hear the words of commendation pouring in from every direction.

Data: Made in April in southern California; 3¼ x 5½ Eastman folding pocket camera; Eastman film; ordinary lens wide open; light, fair; 1/25-second exposure; metol-hydroquinone developer; velox print; atmosphere very clear.

"Homeward Bound", by Edward Alenius, is beautifully spaced and balanced. Technically and succinctly, it expresses one word of commendation—perfection.

Data: "Homeward Bound"; made in Finland; 1-A Kodak; size, 2½ x 4¼; Kodak Anastigmat lens, focal length 5 inches; stop, F/16; made in May, 3 P.M. bright light; 1/50-second exposure; film; M. Q. developer; printed on Carbro paper.

Exposure-Makers' Competition

IN this department the contributors do not expect praise of any sort. All the same, in this instance they have made us acquainted with views of out-of-the-way places—spots that are ordinarily overlooked by the camerist.

Data: "Vernal Falls"; made in Yosemite National Park, California; 2¼ x 4¼ Kodak; R.R. lens, focal length, 5 1/4; stop F/8; made in May, 10.30 A.M.; bright light; 1/25-second exposure; roll-film; tank development; bromide enlargement.

Data: "Bedouins of the Desert"; made in Assuan, Upper Egypt; December 8, at 10 A.M.; brilliant light; No. 1 Pocket Kodak Series II at smallest aperture (stop 4); exposure, 1/50-second; Agfa roll-film; photograph enlarged and finished by Piron, Paris.

PHOTOGRAPHER: "Watch and you'll see a pretty little birdie come out."

Modern Child: "Oh, don't be absurd! Expose your film, and let me get out of here!"

Thru the Darkroom Door.

Another Picture

ANOTHER picture comes to my mind out of the mystic haze of boyhood. I seem to see out yonder a dusty country road a-winding down a gentle slope from a sleepy village nestled snugly midst Ohio hills—down, down to a tiny valley below, more than a mile away. The day is hot and sultry. A lazy cloud of dust is being wafted slowly across the landscape bordering the road by an almost imperceptible breeze. Shouts of laughter and rapid banterings are carried toward me by this same breeze, dust-laden and hot and sticky. Before long, out of the yellow cloud they come, dust-covered and dirty, ragged and unkempt; *boys*—happy-go-lucky, care-free, boisterous, mischievous, nervy, and energetic; coming men, if you will, but *boys*, red-headed, freckled, fat, skinny, short, tall; *real* boys! As they trudge along through the ankle-deep dust, they are approaching a certain old tree by the side of the road, standing apart from its fellows, thrice ligthning-struck, gaunt, and weather-beaten, hand-carved with many letters and symbols which might mean much or nothing; a real landmark in "Boyville", just one mile from town; "The Mile Tree", if you please. As they reach this sacred monument, sacred to all Boyville, there is a great scramble over the fence at the side of it, a grand rush down the slope at the foot of it, a jolly jostling in the shade of it, for is not this the "Old Swimming Hole" of Boyville? The cooling water, as it comes from the old mill high up in the village, has been harnessed and brought to a halt in this shady nook beneath "The Mile Tree" of Boyville, and there, in "The Old Mill Stream", our dust-covered and grimy little friends are soon splashing and diving to their hearts' content.

A picture! A *word* picture, if you please. But does it not bring home to all of us the spirit and carelessness of youth in a way unforgettable and real?

RALPH D. HARTMAN, in *Thru the Darkroom Door.*

Those Technical Details

As you may have noticed, technical details are conspicuous by their absence in most advertising copy. This is due to two reasons:

The general public is not interested in technical details; all that they want to know is, will the *thing* contribute to their pleasure or profit?

The technical man can rarely write interesting copy. The good copy-writer has a mind that resents the limitations of details, and an abiding fear that he may expose his limited knowledge of the subject. Hence those whose interest or curiosity has been aroused are invited to send for a catalog.

The matter of illustration is another delicate subject in the production of advertising. The average commercial illustrator, unless minutely instructed, will be very liable to introduce that which he should have left out and omit that which was vitally essential. In consequence, the photograph is the safest, and, undoubtedly, the most convincing illustration for an advertisement.

Homer Davenport, famous illustrator, was once engaged to do a special cover for the Chinese edition of a California journal. It was a gem as a bit of Oriental atmosphere. Unfortunately, he introduced a sign covered with Chinese characters. These he had carefully copied from some obscure source without technical knowledge of their import. After the publication had been circulated, it was discovered that the sign read "Here is a spot where garbage may be safely and appropriately dumped".

The Boston Mail.

ON THE GROUNDGLASS

WILFRED A. FRENCH, Ph.D.

Enterprising Photo-Finishers

THEY are not so slow in the South as one, off-hand, may imagine. There is our friend Mr. Barnhill of St. Petersburg, Fla., for instance. In order to encourage visiting camerists to bring him their orders for photo-finishing, he lends cameras free. Of course, he requires a satisfactory deposit. It is amazing how many camerists visit Florida, forgetting to bring with them a Kodak or other photographic equipment. Because of the humidity there, camerists will find it desirable to have their exposures photo-finished at a convenient and reliable place as quickly as possible, in order to secure the best results from their exposures.

George Eastman Afield

THAT the photographic world, if not the rest of this sphere's picture-loving inhabitants, is deeply indebted to George Eastman for his invention and production of the Kodak, is a statement that cannot be disputed. He has had the means to make the little instrument known in every part of the civilized world, so that the saying, "Photography is a boon to humanity", which as a matter of fact it is, may be directly identified with the king of camera-manufacturers, now in quest of new laurels in a totally different field of endeavor—the conquest of the lord of the African jungle. Admitting that the redoubtable George has all the necessary physical courage for the task he has undertaken, one wonders how successful he will be; for this time he is snapshooting not with a Kodak, but with a rifle.

What She Wanted

SHE walked into the public library and sweetly said, "I should like 'The Red Boat', please".

The librarian diligently searched the catalog, and came back with: "I don't think we have such a book".

Flushing a bit, she sweetly said, "Perhaps the title is 'The Scarlet Yacht' ".

Again he looked, with the same result. Then with her pretty fingers she went into her bag, consulted a slip of paper, and said: "Oh, I beg pardon. I mean the 'Rubaiyat' ".

Contact.

To Try Photographers for License Breach

CAMERAMEN arrested this week for violation of a city ordinance will be given a hearing in municipal court Saturday morning, it was learned Thursday. Local photographers who swore out the warrants against the visitors claimed the men were taking pictures and selling them locally without a license. The city ordinance provides a license fee of $400 for itinerant photographers.

Photographic Times, March 16, 1928.

Camera in Side of Handbag Saves Extra Carrying

FOR the convenience of the woman tourist, a handbag camera has been introduced. The instrument is concealed in one side of the carrier, which has spaces for the usual articles, but is quickly made ready for photographing simply by raising a flap. The arrangement saves handling two separate articles, and the case effectively protects the camera from damage.

Photographing Objects Through Magnifying Glass

AMATEUR photographers and others sometimes have occasion to make a photo of some small object and secure the largest possible image of it on the negative. Usually photographs of this kind are beyond the limit of their working equipment. Although it is possible to enlarge prints from any good negative, it is desirable to get the largest possible image on the negative. In an effort to accomplish this, I experimented by focusing my camera upon small objects, working through an ordinary magnifying glass. I discovered that the success of the experiment depends on the proper focusing of the magnifying glass with relation to the lens of the camera, and focusing the camera upon the magnified image thus produced. This is quite easy to do with any camera of the reflecting type, one having a groundglass focusing panel, or by placing a groundglass over the open back of a camera of the "guess-box" focusing type. By magnifying the image through an ordinary 5-inch reading glass, I find that I am able to record an image in the camera approximately four times the size that the camera will produce ordinarily. To simplify the handling of the reading glass for such work, I made a bracket for it by taking a block of wood and drilling a hole in it to take the handle of the glass. With this arrangement, as indicated, the glass can easily be moved back and forth to obtain the desired focus between the object and the camera.

JOHN EDWIN HOAG, Los Angeles, Calif.

"Look Pleasant, Please!"

THE sitter not accustomed to smile to order, or at request, is not likely to yield readily to the photographer's suggestion, "Look pleasant, please", or "Hold it!" In any event, he would do so reluctantly, or might hesitate altogether, not being able to visualise the actual facial result. Had the sitter a hand-mirror at his disposal, or could he see himself in the tall mirror usually placed in the studio for the personal convenience of lady-sitters, he would be in a position to judge for himself the artistic effect and naturalness of his smile. In other words, if the prospective sitter, anticipating the photographer's request to appear at his best, could actually visualise his facial expression at that moment, he might more willingly co-operate with the photographer; or, on the other hand, he might decide to postpone the sitting indefinitely.

SHE: "I hear you are a great photographer."
He: "I *hope* to be. I've only just started."
Her: "What are you doing?"
Him: "Well, I'm living in a studio and letting my hair grow."

Thru the Darkroom Door.

THE MONTH IN APPLIED PHOTOGRAPHY

C. B. NEBLETTE, A.R.P.S.
Division of Photography, A.M., College of Texas

Microkinematography of the Individual Living Cell

ACCOUNTS of the work of Chambers at Cornell University Medical School, Seifriz at the University of Pennsylvania, and MacDougal of the Carnegie Institution, on the dissection of the individual living cell under the microscope have appeared lately in a number of journals—among them the *Scientific American* for January, 1928, where Dr. Seifriz gives a very interesting account of the methods, results, and importance of this field of work. By means of specially designed glass-pointed needles, actuated by micrometer screws so that the needle-point may be moved in any desired direction a few microns at a time, an individual living cell not more than one three-thousandths of an inch in size is dissected and analysed under the microscope, much as the surgeon might operate on the human body in a clinic. The possibility of recording such operations by kinematography, thus rendering the results of such work available for other students and for comparison and discussion among investigators, suggested itself to the writer, who thereupon wrote to Dr. Chambers to inquire as to whether this method of attack had been considered or attempted. He has since informed me that there is now being built for him at the Leitz works in Germany a specially designed apparatus for microkinematography with which he hopes to be in a position to make motion-picture records of his work early in the summer, and promises to keep the writer informed as to future progress in this direction. Needless to say, any information which the writer receives will be passed along to the readers of this page.

Movies Used in Agricultural Extension

FEW agencies for public instruction are more alive to the value of the motion-picture as an educational medium than the United States Department of Agriculture. This department began the preparation and distribution of films dealing with different branches of agriculture about ten years ago, and the steady growth in the demand for the films which have been offered may be regarded as evidence that they are considered by the extension agents and agricultural organisations as a valuable aid in putting across to the farmer the results of the investigations and explorations of the staff of the Department. Last year exactly 8,266 shipments of films were made to persons engaged in extending information on agricultural matters, or to organisations stimulating interest in agriculture. The films cover such subjects as the European corn-borer, co-operative marketing, highways and their value to the community, forest-conservation, boll weevils and other insect problems of the farmer, brooding chicks and various types of poultry husbandry, as well as the selection of dairy cattle and creamery work.

At the present time, films are in preparation dealing with hog cholera, tuberculosis in poultry, better livestock, barnyard sanitation, gopher control, rats, the importance of forestry on the farm, and foreign plant introduction. The preparation of these films takes the kinematographers of the Department to virtually every section of the United States and, at times, to foreign countries. Considerable attention is paid to the presentation of the material, and the textbook attitude is avoided so far as possible. Instead, an attempt is made to present the essential facts in a graphic, interesting, and pleasing fashion which will make the film not only informative but fascinating.

As a typical illustration, mention may be made of four productions recently issued. "Wheels of Progress", a two-reel production, shows the evolution of transportation in the United States, and the revolution in highway construction following the introduction of the automobile. Scenes of the old high-bicycle days, and the days of the one-cylinder automobile help to enliven this film, which at the same time does not fail to carry the message of good highways. "Battling Airplane vs. Kid Bug" deals with the airplane dusting of cotton as now practised commercially in the cotton-growing States. It is based on a story by Harris Dickson which serves to make it good entertainment as well as instructive. Another production deals with road building in our National Parks. These scenes, together with views about the parks, tell the story of good highways in an interesting manner, as does another production, "The Forest Fire", which contains some spectacular scenes of forest-fires in the Kaniksu and St. Joe National Forests. Still another production deals with "Southern Cattle, Yesterday and Today", the story of the eradication of the fever tick from the cattle-regions of the South.

Curiosities—The Movie Side-Show

WALTER FUTTER, producer of Curiosities—The Movie Side-Show, released through Educational Pictures, has built up an organisation of one hundred and seventy-five correspondent cameramen who send in unusual subjects from all over the globe. Some 10,000 feet of film comes into the Futter New York headquarters each month, and from this material many hundreds of feet are obtained of sufficient importance to find a place in this novelty release.

Practically every important section of the world is within reach of one or more of these cameramen; and whenever the Futter organisation hears of something unusual that would make an interesting subject for Curiosities, the local cameraman is instructed to send it in. The ideas for other subjects are very often first submitted by the local men for approval, and then "shot"; and many others are the result of the cameraman's willingness to speculate on the idea.

As rapidly as new correspondents are located, they are sent a list of subjects made up of those which have proved acceptable in the past, and in this way they get a good idea of the sort of material desired for Curiosities. From a small beginning this system of obtaining novelty subjects has grown to considerable importance, with a great staff all over the world constantly on the alert for new material. There is an excellent opportunity here for the amateur, as well as the professional, kinematographer to make and to sell interesting pictures.

LONDON LETTER

CARINE AND WILL CADBY

THE E. S. S. Color Filter Company has taken over the manufacture of the original graduated light-filter made by the late Mr. Sanger Shepherd. We have always looked on this filter as a very valuable piece of apparatus in landscape, or, indeed, any outdoor work except portraiture. As our readers probably know, it consists of two pieces of optically worked glass cemented together, half of which is left clear and the remainder slowly graduated in a permanent yellow dye to approximately five time for ordinary landscape, and eight time for Alpine work, by which means the exposure is automatically corrected for clouds, snow-capped mountains, and so on.

All photographers must, at times, have been conscious of the annoying over-exposure of the sky-end of their landscapes, or alternatively of the under-exposure of their foregrounds; and we have found this screen again and again invaluable for correcting these troubles. The screens are made in two shapes, a square and a round; and in using the round variety there is no necessity for extra exposure.

Quite recently Mr. Kearton, the naturalist and well-known photographer, died. He and his brother Cherry are famous over here, and we believe also in the States, as experts in obtaining "closeup" pictures of wild creatures of all descriptions in their natural surroundings; and we are most of us familiar with their birds, snakes, and even the shy mole, all showing by their unconcerned and unembarrassed appearance how ignorant they are of the nearness of the camera.

This gift of inexhaustible patience was still more valuable to the Kearton brothers when they traveled further afield and photographed lions, tigers, and elephants. Both were keen sportsmen in a photographic sense, and took big risks to obtain an interesting bag. Mr. Cherry Kearton, the younger of the two brothers, was, for this country, the pioneer kinematographer of big game and other wild life in natural surroundings; and no doubt both the brothers did much to spread a knowledge and love of natural history, besides leading the way in accurate observation.

Messrs. Kodak are certainly not letting the grass grow under their feet with regard to the Ciné-Kodak. It is taking a very prominent place in both direct and indirect advertising; for is not the young Duke of Norfolk—the premier Duke and Earl of Great Britain—shown in an illustrated paper with a baby kinematograph camera in his hand? The public is not allowed to forget this little wizard, which, without skill or labor on the part of the photographer, will give motion-pictures and enable him to provide an evening's entertainment for his friends.

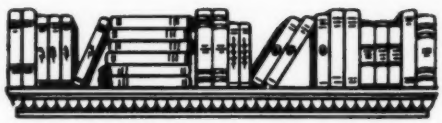
The latest enterprise is the offer of a Ciné-Kodak as a prize in conjunction with the Polytechnic Touring Association; and as the little wizard is not altogether inexpensive, it is a prize worth getting. There is also a Challenge Cup given with it, which, we are afraid, to photographers, savors a little too much of the proverbial make-weight given away with the pound of tea. They would probably prefer the week on the Riviera, or at the Belgian coast, or even in "Bonny Scotland", which tempting holidays accompany the other prizes. Of course, the pictures must have been made on one of the Polytechnic tours; but then, what better opportunity does a busy person get for photography than when enjoying a holiday in stimulating society and among beautiful surroundings?

The combination of travel and photography in any way always seems to us to be particularly sound; for the two are surely complements of each other. This fact was recognised years ago, and developed by Mr. Burriss Gahan, one of the advertising advisers to Kodak. Although his name is barely known to the public, Mr. Gahan was a power behind the throne, and his death last month has been a severe shock to his friends. In spite of years of ill health he had been one of the most active of the staff. He used his marvelous energy and brilliant ability to the full in advancing the interests of his firm.

The Times, our greatest daily paper, has begun a series of photographs on the picture-page of "London Nocturnes"; and they are well worth consideration, not only for their typographical interest, but more particularly for their pictorial charm. So far, "The Pool and Tower Bridge", "St. Martins and Trafalgar Square", "Westminster from Lambeth Bridge", and "Piccadilly and Constitution Hill" have been reproduced. As studies of our old city, they are, if possible, more valuable than daylight scenes; for London passes such a large proportion of its time artificially illuminated that it is a very familiar aspect, and one which in capable hands lends itself to pictorial effect.

We learn from the art editor of *The Times* that these photographs, which are of imposing size, are the work of staff photographers who have been trained over a period of years to obtain pictures that combine news-interest with artistic appeal. The question of publishing them eventually on art-paper is under consideration; and, if this is carried out, they should form an extremely interesting collection that would bear framing, for their pictorial merit is of a very high order, and the luminous atmosphere produced by the millions of artificial lights, so familiar to all Londoners, has been faithfully rendered.

But there is one point about these reproductions which seems less satisfactory. We have always advocated the signing of good photographic work as only fair to the producers and the public; but in this case there is no clue to the artists—not even a subdued combination of initials hidden away in a corner. It is all nonsense for *The Times* art editor to contend, as he does in his communication to us, that "years of training" are alone responsible for such pictures as at least three out of the four mentioned above. It might certainly help in the matter of "news-interest"; but that element is in these cases negligible compared with the artistic appeal. Drawings of equal merit would certainly be signed; then why not these most original photographs? At the Royal Photographic Society's rooms there has lately been an exhibition of architectural subjects by Mr. W. A. Clark, and a study of his called "Nocturne—Gloucester" has much of the feeling and charm of the night-photographs in *The Times* which we have been discussing; but we have no information that would lead us to connect his name with them.



BOOK-REVIEWS

Books reviewed in this magazine, or any others our readers may desire, will be furnished by us at the lowest market-prices. Send for our list of approved books.

AMATEUR MOVIE-MAKING, by Herbert C. McKay, A.R.P.S. 460 Pages; Appendix with Formulæ and Glossary. Profusely illustrated with photographs and diagrams. Price, $3.00. New York: Falk Publishing Company.

It is always a tremendous satisfaction to us to see any man reach a definite objective. It is an especial satisfaction when the man in question is a friend and the Motion-Picture Editor of PHOTO-ERA MAGAZINE. We know better—we believe—than anyone else, what this new book by Herbert C. McKay represents in hard work and thought. It should be remembered that PHOTO-ERA MAGAZINE was the first American photographic publication to have a motion-picture department, and Mr. McKay was its editor. Our venture caused many of our readers, and some of our cotemporaries, to question our judgment. Some even poked good-natured fun at us. However, ours has been, and is today, the privilege to laugh last, and to watch others follow our lead. We are glad that our judgment is finally approved, and we are glad that there is plenty of room for all of us to work together for the growth and service of amateur kinematography.

In his new book, Mr. McKay writes in his pleasant, chatty style, which holds the reader's attention, interests him, and instructs him at the same time. From his editorial experience and his correspondence with hundreds of amateur kinematographers, he is in a position to know with considerable accuracy just what information will or will not be of practical service to the amateur movie-maker. Furthermore, he has asked and received the co-operation of leading manufacturers and dealers in connection with all optical and technical matters relating to equipment. The very latest data were placed at his disposal. Then, to all this, he added his own personal experiences, observations, and suggestions for the benefit of his readers.

The book is divided into three parts; the first, "The Amateur Cameraman"; the second, "The Amateur Producer". There are twenty-one chapters in these two parts. In the third part there are valuable formulæ and a glossary. There is virtually no part of amateur kinematography which does not receive attention. The endorsement of the Amateur Cinema League indicates that Mr. McKay has produced an excellent piece of work, which we all hope will become one of many similar books as amateur kinematography grows. The book itself is exceptionally well done typographically and is beautifully bound in Spanish-grained, embossed fabrikoid. Mr. McKay set out several years ago to do something constructive, practical, and inspirational for amateur kinematography, and he has done it.

MOTION-PICTURE PROJECTION, by James R. Cameron. Fourth Edition (Tenth Year). 1272 Pages; 607 Photographic Illustrations and Diagrams. Price, $6.00. New York: Cameron Publishing Company.

The subject of motion-picture projection is one which has become of very great importance. This is especially true within the last few years, when amateur kinematography has added its thousands to the ranks of the professional projectionists. The motion-picture is now so widely used in education, industry, scientific research, and other non-theatrical fields that projection-machines are now to be found in schools, colleges, factories, clubrooms, hotels, and churches. For this reason, very often the operator of such a machine is an amateur who has volunteered his services. In many cases it is not possible for him to take a course of technical training, nor is there anyone to pay for such tuition. At this point Cameron's "Motion-Picture Projection" fills an immediate need.

Although much of the text is devoted to theater projection, there is much space given to projection for business and educational purposes. In fact, there is no branch of projection that is not treated in a clear, practical, and helpful way: the matter of illumination, its power and manner of handling; the projection machine, its setting-up, running, and care; ventilation; talking motion-pictures; laws governing the showing of motion-pictures; questions and answers; memory tests; tables; and glossary. There is a special chapter devoted to 16-mm. projectors. Altogether, this is a textbook for the amateur or the professional who is in the business, or is eager to qualify as a reliable projectionist. The book is so written that it is not over the heads of amateurs, and yet the professional will need it to keep up with the latest projection apparatus and methods.

Mr. Cameron is the author of several other textbooks on motion-picture projection for the professional and the amateur. He is a recognised authority in his field, and is so considered by the U. S. Government Departments, Boards of Education, Theatrical Syndicates, manufacturers and dealers, not to mention scientific and engineering societies. Those of our readers who require the latest practical information with regard to motion-picture projection in all its branches will do well to place an order for this book at once.

PICTURE VALUES IN EDUCATION, by Joseph J. Weber, Ph.D. 156 Pages; 42 Photographic Illustrations. Price, cloth, $2.00. Chicago: The Educational Screen, Inc.

Those who have not been following modern educational methods will be surprised to note what an important part photography is playing today in our schools and colleges. Very careful investigations have been and are being made by trained educators to determine accurately just what photography can or cannot do in modern education. One of these experimental investigations is recorded by Dr. Weber in this book, and includes his work with grade pupils and college students. Also, the book includes a suggestion for a teacher-training course outline. We believe that our readers who wish to keep well informed with regard to what photography is doing in the world today will find this book of interest and value. Those of our readers who are teachers, or who are interested in educational matters, will do well to have first-hand knowledge of what is being done in visual education. After all, we think that the sooner some good people wake up to the fact that photography has something more to it than vacation snapshooting, the quicker will photography take its rightful place among the arts and sciences of our educational system.

HERE, THERE AND EVERYWHERE

To ensure publication, announcements and reports should be sent in not later than the 5th of the preceding month.

The New Agfa Ansco Corporation

NEWS of far-reaching importance to the photographic trade comes in announcements of the merger of Ansco Photoproducts, Inc., and Agfa Products, Inc. The merger, under way for several months, was completed in New York City during the month of March at a meeting of directors and election of officers of the new Agfa Ansco Corporation, which is chartered under the laws of New York State.

The new corporation takes over all the business and assets of Ansco Photoproducts, Inc., and Agfa Products, Inc., and acquires all of the capital stock of Agfa Raw Film Corporation. General offices are in Binghamton, N.Y., with branches in New York City, Chicago, San Francisco, and Atlanta. Agfa Roll-Film will be sold during the current year from the New York offices at 114 East 13th Street, also from other branches, this division being in charge of H. B. Ridge, manager of Agfa Roll-Film sales. Ansco Film will be sold as hitherto from Binghamton and from the San Francisco branch. All motion-picture film for professional use will continue to be sold by Agfa Raw Film Corporation, 1600 Broadway, New York, of which Alfred Weiss is president.

The president of the new company is Horace W. Davis, who was president of Ansco. The other officers are Dr. Walter Lenger, first vice-president and general production manager; Carl Bornmann, vice-president in charge of camera production; Rudolph Worch, vice-president and treasurer; John S. Norton, vice-president in charge of amateur film and camera-sales; Sherman Hall, vice-president in charge of professional sales; Ottor von Schrenk, secretary; and C. E. King, assistant treasurer.

The board of directors of the new Company is as follows: Walter H. Bennett, Wm. C. Breed, Horace W. Davis, A. W. Erickson, Ernst Friedlaender, Walter Lenger, Wilhelm Lohoefer, L. F. Loree, Herman A. Metz, Kurt Oppenheim, Albert Rothbart, Richard H. Swartwout, Almuth C. Vandiver, Otto von Schrenk, and Paul M. Warburg.

Richard H. Swartwout, who was chairman of the board of directors of Ansco Photoproducts, Inc., is chairman of the board of directors of Agfa Ansco Corporation, and Ernst Friedlaender is chairman of the executive committee.

The new company brings together Ansco, America's oldest photographic company, and Agfa, Europe's largest, a strong combination. Ansco, with extensive manufacturing plants in Binghamton, Johnson City, and Afton, N.Y., holds a prominent position in the American market with its Cyko, Noko, and other photographic papers, Ansco Speedex Film, and Ansco cameras, which latter have taken first prizes in all competitive exhibitions. With the initiative and originality of Ansco are now combined the technical proficiency and resources of Agfa, world-famous for the quality and performance of its photographic products and a division of I. G. Farbenindustrio, A.G., of Germany, one of the world's largest business enterprises. The full benefit of its research laboratories will be applied to the products of the new corporation, and to that end plans have been completed and construction will be started immediately on a modern film-plant, which is expected to be the finest film-production unit thus far erected. This plant, covering approximately 100,000 square feet of ground-space, will be situated adjacent to the present Ansco factories in Binghamton, N.Y.

The products manufactured and sold by Agfa Ansco Corporation include all types of photographic products: Agfa professional and amateur motion-picture film, Agfa Portrait Film, X-Ray Film, Agfa Roll-Film, Agfa Film-Packs, and Ansco Speedex Film; cameras for professional and amateur use, among which are the well-known Ansco Readyset and Nemo cameras; standard and special-purpose professional and commercial papers, including Cyko, Noko, Nokoline, etc.; Agfa photographic chemicals, supplies, and sundries.

President of Kodak Company Now a Colonel

MR. W. G. STUBER, president of the Eastman Kodak Company, has been appointed a Colonel on the staff of Governor Flem D. Sampson of Kentucky in recognition, according to the announcement, of his achievements in the worlds of business and photography. Mr. Stuber is a native Kentuckian, and it was as such that he was honored.

Colonel Stuber came to the Eastman Kodak Company in 1894 after building up a photographic materials business in Louisville. The responsibility for the success of the Eastman Kodak Company is in no small measure due to him. From the position of vice-president of the Eastman Kodak Company, in charge of photographic quality, Colonel Stuber succeeded Mr. George Eastman as president in 1925, when Mr. Eastman became chairman of the board of directors.

Exhibition of Prints at Camera Club, New York

THE Camera Club of New York, founded in 1884, and located at 121 West Sixty-Eight Street, offered an exhibition of photographic prints by Thomas S. Carpenter of Attleboro, Mass., from April 7 to April 30, 1928.

Mr. Seiden Lectures to N. Y. I. of P. Students

"THRILLS OF A CAMERAMAN'S LIFE" might well have been the title of the lecture delivered before the assembled classes of the New York Institute of Photography by Mr. Joseph Seiden, president of the Seiden Film Corporation of New York.

In stressing the importance of staying by the camera in the face of any and all emergencies, Mr. Seiden took his audience with him on the American-Siberian Relief Expedition, into the tropics and into the Canadian wilderness; under fire and in the face of danger—all to the end that these scenes shall be recorded upon celluloid for the entertainment or information of the public.

A lighter note was struck when Mr. Seiden told of his experiences in filming the Dempsey-Tunney fight in Chicago. The films were used in computing the length

of time Tunney was down, and this computation was questioned, due to the ease with which camera and projector speed can be altered. It was explained that the cameras used in this instance were all driven by electric motors geared to expose exactly 180 feet of film for each three-minute round—except the high-speed cameras, of course. Later, in projecting these films in a projector set to project exactly 60 feet per minute, it was found that Tunney was down 18½ seconds. The information is passed on as a note of interest.

Having been actively engaged in motion-picture work for many years, Mr. Seiden is one of the best-known camerman in New York. He is a member of the Advisory Board of the New York Institute of Photography, and holds a faculty position in the Institute as special instructor in industrial and news motion-picture photography.

Sectional Exhibitions of International Congress

In connection with the Seventh International Congress of Photography to be held in London during the second week in July, 1928, it has been decided to hold exhibitions of an international character for each of the sections of the Congress. These exhibitions will include pictorial exhibits and scientific apparatus, as well as matter illustrating new photographic processes and apparatus. There will also be a trade-exhibition showing the recent trade-developments in photographic goods.

The pictorial prints will be especially invited by the section of the Congress dealing with pictorial photography; but all other material which American workers may desire to submit to the Congress should be referred to the undersigned, who is acting as secretary for the American Division. As far as is known at present, there will be no charge for space at the exhibition, although a small charge may be made later for inserting notices in the exhibition catalogs in order to cover the cost of printing the catalog.

C. E. K. Mees,
Secretary of the Committee, Seventh International Congress of Photography,
Kodak Park Works, Rochester, N.Y.

Annual Election of Newark Camera Club

At the annual meeting of the Newark Camera Club, Inc., held on Monday evening, April 9, Edward Browaski, William L. Woodburn, and Julius F. Græther were re-elected president, secretary, and treasurer, respectively, and Frank J. Hall was elected vice-president. Chester B. Kohn was elected to the Board of Trustees, and Lyman Lee and J. V. H. Van Reyper were re-elected, all for a three-year term, with Charles J. Barkhorn and Marius H. Peterson as alternates. The annual dinner was held at the Elks Club.

W. L. Woodburn, *Secretary.*

The Textbook—and Then

Everyone who studies a subject from a technical textbook is well aware that unless the latter is of huge proportions it cannot possibly put before the student the particularities of many parts of the subject with which it deals. The textbook writer must naturally aim at providing the student with what may be called the standard presentation of the subject—that is to say, a treatment of it which comprises methods and facts which are universally accepted by the authorities. In the case of most textbooks, no effort is made to carry the student beyond this point, and thus the prosecution of further study falls to the ground through lack of guidance to the further papers, articles, and other communications in the periodical literature. It deserves to be mentioned that Mr. C. B. Neblette, in writing his excellent "Photography: Principles and Practice", is not guilty of this omission. Admirably as the many branches of photography are treated in his six hundred pages, the latter are supplemented by a series of references to technical journals, showing the student the places to which he may turn for more comprehensive consideration of particular items. This list itself occupies forty pages, in which the references are skilfully arranged in correspondence with the chapters of the book. Mr. Neblette must have spent infinite labor upon it. It is an extra to the writing of a textbook which may be warmly recommended to writers in general.

The British Journal of Photography.

[We take especial pleasure to quote this editorial note from our esteemed British cotemporary. We happen to know, as Mr. Neblette is one of our department editors, that he is making a sincere effort to be of service to the art and science of photography. We are glad to see him win well-deserved recognition from our British friends.—Editor.]

A Speedy Movie Lens

Toward evening, when the sun sinks away and dusk comes on, or on the camping-trip in the woods, where the dense foliage does not admit the sunlight, movies can still be made; but the camera should be equipped with a fast lens. With the camera so equipped, there need be no fear of making motion-pictures of poorly lighted interiors or on dull, cloudy days.

The Wollensak Optical Company, of Rochester, N.Y., have recently placed on the market the F/1.5 Ciné-Velostigmat, which produces films that sparkle with snap and brilliancy when projected many times their own area upon the screen. These lenses are made in one-inch and two-inch focus for 16-mm. and standard-size motion-picture cameras.

The amateur, as well as the professional motion-picture operator desiring a lens of general utility, will find the Wollensak Ciné-Velostigmat F/1.5 an admirable choice and a very fine investment where the ultimate in movie-making is desired.

A new catalog has just been published by this company, and it describes in detail the lenses and accessories for the amateur movie cameras. You can obtain your copy for the asking.

Copeland on Health

By Royal S. Copeland, M.D.

Former Commissioner of Health, New York City
United States Senator from New York

Not long ago a mother wrote me about her boy's eyes. He is unable to get along in college because "his eyes won't focus".

The trouble is that we look upon good eyesight as being a thing related to one eye, or to each eye separately. As a matter of fact, it is related to two eyes and to two eyes working in unison.

The other day I was one of several Senators who were guests at the White House for breakfast. The president had just been given the millionth gun manufactured by a great firearms factory.

Colonel Brookhart, who was among the guests, is a famous rifle and pistol shot. He was chief instructor in rifle and pistol shooting in the training of our men for the World War.

The President's remark about the new gun led to

a discussion of eyesight in connection with rifle practice. Colonel Brookhart asked that each of us point his finger at an object, and, leaving the finger in position, to shut first one eye and then the other to see which eye fixed the object pointed at.

You try this experiment for yourself. When I point at an object and then close my right eye, I find my finger still pointing directly at the thing. Then closing my left eye, the finger appears to be pointing away off to the left.

This shows that my left eye is my commanding or master eye. It is the eye I would naturally use in aiming a rifle or pistol. But in reading and in almost everything else we do, we use both eyes at the same time.

Let me ask you to perform another experiment: Place the point of your pencil on the period at the end of this sentence. Then shut first one eye and then the other—you will find that the pencil point is exactly on the period, no matter which eye you use.

In order that there may be perfect sight, free from all suspicion of double vision, each eye must have clear sight and both eyes must be so directed by the perfect muscular action as to focus together. In short, each eye will point directly at the thing looked at and each eye will see it clearly.

We cannot have comfortable vision unless the many little muscles which act as the steering-gear of the eyes all work so nicely together that the eyes are all the time in perfect position. Otherwise it would be as if one front wheel of your automobile went one way and the other some other way.

When the eyes are out of kilter, it isn't enough to test each one to find what lens is needed to make the vision clear. It is necessary, too, to make sure that there is team-work—that the eyes are working together.

The reason that the glasses don't prove satisfactory in some cases is because the eyes are not working as a good team. One eye is doing all the pulling, and will soon get tired. There must be a fair division of the work, or headache and distress are sure to follow.

The muscular arrangement of the eye is very complicated. The nerves which control these muscles must be ever on the alert. It requires the nicest imaginable adjustments to keep the eyes exactly where they belong.

I speak of this, because it may help you to understand why your glasses may not be as satisfactory as you could wish. If they do not permit you to do your work comfortably and easily, we suggest that you have a talk with the one who fitted them. A further test may discover the real trouble.

The New Graf Lens Company

Our readers will notice the advertisement of the Graf Lens Company, 306 South Wabash Avenue, Chicago, Ill., which appears in this issue. Doubtless they have missed it for the past few months and, perhaps, have wondered what it was all about. What has happened is that there has been a reorganisation; so that the new company has ample financial resources and the latest and best optical and technical equipment. Prompt deliveries can now be made, and Graf lenses will be better and more favorably known than ever before. Mr. Minor, designer of F/1.9 lenses, and leader in the field of Ultra Speed lenses, is head of the new research department. Our good friend, Mr. P. F. Pfeil, is an important factor in the present and future plans of the company, and we are glad that he is meeting with such well-merited success. All communications to the Graf Lens Company should be addressed to Chicago, Ill.

Schneider Xenar F/3.5 Lenses for Graflex

It will be of interest to our readers to know that the Folmer Graflex Corporation will offer for sale within a very short time a new model Graflex camera called the Model D. This, we are informed, is an improvement, but is similar to the Revolving Back Telescopic Graflex which was discontinued.

The popularity of Jos. Schneider & Company lenses has again been forcibly demonstrated by the fact that this new model will be listed with the Schneider Xenar F/3.5 lenses as well as the Schneider Tele-Xenar F/5.5 Telephoto lenses.

The Xenar F/3.5 lens is of the same formula as the popular Xenar F/4.5 lens; and, unlike most such high-speed lenses, it suffers no reduction in the number of glass-elements used. One merely has to stop down to F/4.5 to obtain all of the quality that the Xenar F/4.5 is noted for.

The Schneider Tele-Xenar F/5.5 is one of the latest offerings of the Schneider factory. It is of the fixed-magnification type, and nearly doubles the size of the image, using the bellows extension of the regular lens. These lenses are beautifully corrected, even for their high actual working-speed of F/5.5, and unquestionably make a valuable addition to the Graflex equipment. In addition to the most obvious need of a Telephoto lens for general work, they are very popular for portraits by reason of their long-focus perspective.

Exhibition of Dr. Mayer's Bromoils

During the month of April an exhibition of Dr. Emil Mayer's bromoil prints was held at the rooms of the Photographic Guild of Philadelphia. On the evening of April 18, Mr. Joseph M. Bing, a pupil of Dr. Mayer and of the Drem Products Corporation of New York City, gave a demonstration of making bromoil prints. As Mr. Bing is considered to be one of the leading bromoil makers in the United States, his demonstration proved to be of great interest and value to those who were fortunate enough to be present.

Voigtländer Cameras and Lenses

It is of interest to note and to record the number of old, well-established, and famous camera and lens manufacturers who, although many years old in business, are still young and progressive. As evidence of this youthful spirit we note the many new models of cameras and types of lenses which are being produced to meet modern photographic needs. There seems to be a concerted desire to give amateur and professional photographers the very best possible equipment. Voigtländer cameras and lenses have enjoyed an international reputation for excellence for more years than most of us care to remember. They have the prestige which comes from a long and honorable service to the photographers of the world. Yet, although they might well rest on their laurels, Voigtländer cameras and lenses are being made for the needs of today and with the demands of the future in mind. The fact that such a well-known and progressive photographic dealer as Willoughbys, 110 West 32d Street, New York City, is United States Agent for Voigtländer products, is indication enough that these excellent cameras and lenses are especially fitted to meet the requirements of American photographers. Interesting descriptive matter may be obtained from Willoughbys, and we suggest that our readers write for it.

Motor Cars Plowing Through Heavy Snow

JUST as we were going to press, we received a telegram with the request that we ask the co-operation of our readers in supplying to Mr. E. G. Jackson, 8044 Rush Street, Chicago, Ill., photographs of motor cars plowing through heavy snowdrifts. If the cars are lacking in the picture, Mr. Jackson would still be interested in views of good snow-scenes showing roads. We have no particulars with regard to size of prints desired or prices paid. We suggest that our readers communicate direct with Mr. Jackson.

"Mothers' Day" Photographs

WE are glad to call attention to the excellent campaign which is being conducted by the Z. T. Briggs Photo-Supply Company, 916 Grand Avenue, Kansas City, Mo., to encourage the giving of photographs on Mother's Day, May 13. Without a doubt there is nothing that a mother would appreciate or treasure more than a good picture of son, daughter, or husband. Those photographers who adopt the idea and co-operate in this campaign will be helping themselves and photography as well. We believe that our readers will be interested to receive further particulars from Mr. Briggs.

Dr. T. W. Kilmer Is Reviewing Officer

MOST of our readers are well acquainted with Dr. T. W. Kilmer, the pictorialist and famous amateur portraitist; but few think of him as a military man. However, we received a very interesting program of the recent review of the 102d Regiment Combat Engineers (22d New York Engineers), held at their Armory. We were surprised and glad to note that the Reviewing Officer was Major Theron Kilmer. We might add that our subscription list shows the names of many officers and enlisted men in the Army and Navy—all of which goes to prove that military men are not quite so "hard-boiled" and militant as some would have us believe.

Clarence H. White School of Photography

IN recent years there has grown up a demand for the special training of men and women for the vocation of photography. In 1910 Clarence H. White established a school as a professional institution which was to prepare students to earn their living by means of photography. He also conducted a summer school at Canaan, Conn., for the same purpose. His untimely death upset the carefully laid plans which he had made for the future. However, his wife and son, after careful thought and preparation, have re-opened the school at the same location, 460 West 144th Street, New York City, and, assisted by an excellent and well-chosen faculty, are ready to carry on the splendid work temporarily stopped. A new descriptive folder will be mailed to those who are interested. We are glad to see this excellent school again open its doors, and we wish it great success.

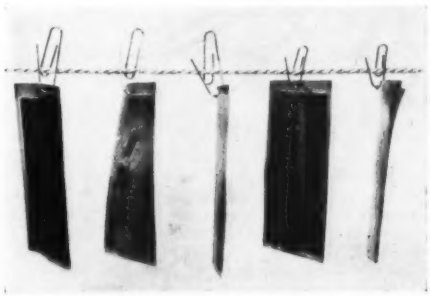
Large Order

EDISON, with all his inventions, was a piker compared to the ambitious young photographer who advertised: "Your baby, if you have one, can be enlarged, tinted and framed for $8.79."

Hardware Age.

Clips to Hang Film-Packs

USERS of Dallon film-pack tanks and Eastman film-pack tanks are often desirous of an inexpensive and easy means to hang up the films to dry. The Gem paper-clips, size three or larger, may be purchased at ten cents a hundred at any stationery-store. If the



CLIPS IN USE HARMAN W. DUNHAM

outside end of the clip is spread a little, it will easily perforate the film—which is then slid to the rounded end of the clip. The clip will then slide smoothly onto a string and hold securely, the film being at right angle to the string. This enables many films to be hung in a small space, as the illustration shows.

HARMAN W. DUNHAM.

Worry Less

AFTER a man passes the half-century mark he should permanently part company with Worry; for if Worry continues as his business associate, his table companion, and his bedfellow, Worry will soon put him beneath the sod.

It is not defective heart or stomach or kidneys that are primarily responsible for the sudden dropping out of so many men of affairs; it is the grim struggle with some adverse condition—real or imaginary—which saps vitality and robs one of the will to live.

Successful men, more than any others, refuse to recognise their limitations. They are irritated by opposition. When confronted by an unpleasant and unalterable condition, they waste their energy in fretfulness and worry. They take themselves too seriously.

Life would be happier and more protracted for many if they believed more in Fate—or, better still, in an All-Wise Providence. As Rabbi Akiba came to know, "All that God does is done well".

The Rabbi, riding an ass, and carrying a rooster and a lamp, was overtaken by nightfall in a lonely wood.

"All that God does is done well", said the Rabbi, and, dismounting, lighted his lamp.

The wind blew out the light. The rooster and the ass wandered away in the forest and were destroyed by wild beasts. Still Rabbi Akiba said, "All that God does is done well".

Next day he learned that a band of cut-throats and robbers had passed near him in the forest during the night. Had his lamp burned, or the rooster crowed, or the ass brayed, he would surely have been discovered, robbed, and murdered. So he knew of a truth, "All that God does is done well".

The Boston Mail.

THE EDITOR'S CORNER

Photo-Era Trophy Cup Race Scores

APPARENTLY the excitement which attended the February competitions was too much for some of our contestants. At any rate, Clifford Norton of the Cleveland Photographic Society was the only camera club member to win a prize in the March competitions. The other four prizes were won by contestants who were not members of any camera club, according to the data submitted with each print. Mr. Norton succeeded in obtaining the Second Prize award in the Advanced Competition, thereby bringing about a tie between the Cleveland Photographic Society and the Brooklyn Institute for first place in the race. Inasmuch as several of the other clubs are within striking distance, this tie for first place may be broken as soon as the April competitions are judged. The May and June competitions are the last which will count toward the PHOTO-ERA TROPHY CUP for 1927–28. The Fort Dearborn Camera Club now has it. What club will hold it after the June competitions?

According to our records, the standing of the camera clubs at the end of the March competitions was as follows:

Seattle Camera Club	2
Brooklyn Institute	4
Fort Dearborn Camera Club	2
Cleveland Photographic Society	4
Syracuse Camera Club	1
Wilkes-Barre Camera Club	1

The "Why I Am a Pictorial Photographer" Series of Articles

WE wish that we could give our readers all at once the exceptional articles which leading pictorialists are sending in to us for the "Why I Am a Pictorial Photographer" series which begins in this issue. Each pictorialist has been invited to select his own picture with which to illustrate his article. In this way we believe that our readers will obtain an interesting and helpful glimpse of the pictorialists whose names are well known at the leading salons and exhibitions.

We wish to make it very clear that the order in which these articles appear should not be interpreted as being a reflection of our appraisal of the standing of the contributor. It should be apparent that in writing to so many pictorialists, inviting them to co-operate with us, some may be away, others may be ill, and still others may be too busy, for the present, to prepare an article and make a print. In consequence, we decided to print each article as closely as possible in the order in which we received it.

Within the next few months we are to have articles from William H. Zerbe, Louis F. Bucher, Dr. Max Thorek, Dr. K. Koike, and William L. Woodburn, in the order mentioned. These articles are in type and ready for the printer. Other articles have arrived, are on the way, or are in preparation. This exceptional series of articles will be continued for many months, and will give our readers a better understanding of what is in the hearts and minds of acknowledged leaders in pictorial photography. After all, are we not one large family, and should we not become better acquainted?

We believe that many of our readers, especially beginners in photography, will be amazed to learn how some of the well-known pictorialists began their photographic careers and the equipment they used, and use today. With all due respect to the many excellent *de luxe* cameras, it is apparent, from the articles in this series which we have read, that imported or *de luxe* cameras do not make the pictorialist. First comes the natural artistic sense of beauty and design, then the camera—whether it be imported or home-made. In short, the true pictorialist uses the camera with which he can obtain the results he desires. If it be a *de luxe* camera, well and good; if it be an humble little box-camera, well and good. With him the camera is secondary—a tool; and he naturally uses the tool with which he can do his best work, irrespective of size, price, or origin. Yes, we do think that this series will make interesting and profitable reading for us all.

Result of the Vote on Competitions and Subjects

IT will be recalled that we asked our readers for suggestions as to how our competitions might be made more interesting and helpful. We also asked for a definite expression with regard to whether or not to have specified subjects each month, or have each competition miscellaneous. *The vote was better than seven to one in favor of specified subjects.* However, changes in the subjects were suggested, and the advisibility of having at least two miscellaneous competitions during the year. These changes will be made beginning with the July, 1928, number.

With regard to the PHOTO-ERA TROPHY CUP competition, beginning with the 1928–29 race each winner of a first prize award will receive a credit of three points for his club; the second prize winner, two points; the third prize winner, one point; and each winner of an Honorable Mention Certificate will receive a credit of one-half point for his club. This will go into effect with the September, 1928, competitions.

We have already changed Rule 8 of the Advanced Competition so that winners of three first prizes within a year may still enter prints, but will not be entitled to receive silver cups for one year thereafter.

Thanks to the hearty response from our readers, we believe that we can be of greater service. However, we cannot do all the things suggested, and neither can we please all our friends. We shall try to meet the wishes and the suggestions of the majority, and trust to the good sportsmanship of those who may not have all their personal wishes fulfilled for the present.

We wish to express our sincere appreciation for the hearty cooperation which has been given us by readers in all parts of this country and overseas. It has helped us immensely.

MOTION-PICTURE SECTION

FEATURING

The AMATEUR KINEMATOGRAPHER

Edited by

HERBERT C. McKAY, A.R.P.S.

Dean of the New York Institute of Photography
Author of several motion-picture text books

AND THE

ANNOUNCEMENTS OF MOTION-PICTURE MANUFACTURERS

AND

DEALERS IN AMATEUR EQUIPMENT AND ACCESSORIES

A Department Conducted for and by Photo-Era Readers and Advertisers

THE AMATEUR KINEMATOGRAPHER

HERBERT C. McKAY, A.R.P.S.
Dean New York Institute of Photography

Making the Home Movie

WHEN the scenario is completed, the next step is casting. The problem of casting is one which deserves more consideration than is usually given it. No matter whether you are filming a "controlled" reproduction of family-incident or a more pretentious drama, have the rôles played by characters who are to some extent naturally adapted to such rôles. Naturally, in family-records the rôles will be carried by those who have the same rôle in real life. In the amateur drama, however, there is a marked tendency to show favoritism.

There is, of course, no law which prohibits the camera-owner from assigning rôles according to his own pleasure; but artistic excellence will never result from the substitution of personal favor for technical selection.

Although the writer feels that drama is not the highest place which the art of kinematography can occupy, he does believe that amateur photo-drama should be produced with all the care bestowed upon a professional production. Always bear in mind that the amateurs are, as a rule, the most successful salon-exhibitors in the still field! There is no reason that, if the proper scenario is chosen to begin with, the amateur production should not equal or even surpass the professional. This is even more true now that we have the various accessories which enable us to produce the different "effects" which characterise the professional production.

For the sake of lasting success in your kinematography, form some kind of club or other permanent organisation. To the fullest extent of your power, obtain members whose interest in the work is permanent. When you have this unit organisation, proceed to make screen-tests of each member. The results will surprise you.

The screen-test should include a full shot, a close-up both three-quarter and profile, with a full face, too, if you like. Girls should perform a few dance-steps to indicate the character of their habitual motion. Both men and women should try to register a few elemental emotions. These tests will do a great deal toward indicating the photographic appearance of the subject, his degree of self-consciousness, his ability to interpret emotion through the medium of pantomime, and his general "type". This type may be something altogether different from the true character of the individual as you know him personally.

The scenario includes, in all cases, a "cast of characters". This cast gives a short characterisation of each character in the play. This cast should be studied by the director—who is usually the cameraman as well—until he becomes as familiar with each character as though each were a living person. With the cast well in mind, the screen-tests of the company are projected and the director makes his choice according to his conception of the character gained from the scenario. This is a matter which should not be left to the decision of the club as a whole. The director is responsible for the harmony of the completed production, the individual actors each being responsible for his own interpretation only. For this reason, the director assigns rôles according to his interpretation of the plot as a whole.

The first danger to avoid is the vain "local beauty". She will ruin your film. A professional director has the authority to handle such natures; but in your semi-social position you cannot adopt the harsh measures necessary. Such girls—but the characteristic is not limited to the feminine sex—are instinctive "screen-hogs", and it is almost impossible to break them of the habit of looking directly into the lens—the first thing the amateur director should learn to prevent.

The nature of the character should be interpreted not through the nature of the actor, but through his appearance! Select for the villain of the piece an individual whose appearance suggests furtiveness and meanness! He may be the local Scout leader; but that is of no moment. The young housewife may be an incorrigible flapper; but if she looks meek and contented, she is the one for the rôle.

With these things in mind, the casting of straight rôles will not be difficult; but character-rôles present a far more difficult problem. In such cases it is almost always advisable to make a screen-test of the selected actor in the make-up of the rôle. As character make-up is an art in itself, no more need be said of this work at this time. There are some natural characteristics which aid in casting "characters". An outdoor man, such as a ranger, cowboy, soldier, and so forth, could hardly be successfully portrayed by a soft, white-skinned office-worker inclined toward portliness and a bald spot! He may be a potential hero, and may be possessed of a romantic soul; but his physical appearance is not that which we commonly associate with hardened men of the outdoors.

On the contrary, the financier should not be a small man with a modest carriage—he may be a millionaire in real life; but we associate the financial wizard with a large, imposing bulk, a full and somewhat florid countenance.

In modern life the spinster is practically nonexistent. Many very attractive and companionable ladies of middle age are unmarried, but spinsters?—hardly! However, the spinster is an indispensable part of our dramatic world. She practically "makes" the small-town drama. As the village-gossip she has become almost classic through many professional presentations. Although presenting unusually good opportunities for acting of professional calibre, few girls will be pleased with being chosen for this type. The actress should have sharply defined features, not pinched by any means; but neither should her face be full and childish. A pair of steel-rimmed glasses and a set of corkscrew curls will aid materially in the characterisation. A little nose putty can at times be used to advantage, but this again leads us into the subject of character make-up.

There is no end to the subject of selecting types for character-rôles. But if the director will remember that character-rôles demand his best actors, and that the face should be of the type upon which the character make-up can be added successfully, he will have made great progress toward successful casting.

After the cast is completed, all members should be

PORTRAIT LIGHTING-EFFECT FOR CLOSE-UPS

HERBERT C. MC KAY

assembled and the scenario read. This will give each member a comprehensive idea as to the story as a whole, and his relation to each of the others. With this as a starting-point, you are ready for the preliminary rehearsal and the preparation of make-up and costumes.

The Fotolite Units

THE writer recently had the opportunity of making a thorough test of the newest incandescent lighting-equipment to be placed on the market, the "Fotolite" units.

The Fotolite is a photographic lamp made in individual units. The basic unit is the "Number 5" reflector. This consists of an aluminum reflector of suitable size for the T20, 500-watt projection Mazda bulb, the socket, a wooden handle, and a connecting cord with control-switch. The lamp may be used as a hand-lamp without further additions; but stands of two types are supplied. One stand has a clamp to support one of these Number 5 reflectors at any height desired, from about three feet to seven feet. Another type of stand has an adjustable crossbar supporting two reflectors at any desired separation, from eight inches to thirty. With a complete set of three reflectors and the two stands, the most elaborate lighting-effects may be obtained for either home-movies or for still photography. Clamps are provided which will hold diffusing-screens of any desired thickness. These clamps are suitable for use with any Fotolite reflector.

The Fotolite Number 10 is a new item on the Fotolite list. This has a specially calculated reflector designed to give an absolutely evenly illuminated field, the light-source being the T20, 1000-watt projection bulb. This lamp alone, used with any good reflecting screen, will supply ample illumination for instantaneous exposures with still cameras; and when supplemented with a single Number 5 with the 500-watt bulb, will give sufficient illumination for a fully exposed motion-picture film, at F/3.5 if panchromatic stock is used, or at F/2 with ordinary film.

The Fotolites follow one principle which has been used to very good advantage by the professional studio. Unless otherwise ordered, the Number 5 style will be supplied with a 100-volt, T20 Mazda instead of the 110-volt. (The Number 10 is supplied with the 110-volt, T20, 1000-watt projection bulb.) At first glance it would seem that the use of the 100-volt bulb on a 110-volt line would be inadvisable, due to the danger of "burn-out". This is not the case.

There is a definite relation existing among the various characteristics of the incandescent bulb, such as rated voltage, applied voltage, life, and initial lumens. When using a bulb of a specific voltage rating, we obtain a certain amount of illumination by applying that voltage. If, however, we apply a greater voltage, we increase the illumination or the initial lumens to a

RESULT OF USING SET-UP SHOWN
HERBERT C. MC KAY

degree out of all proportion to the increase in current pressure (voltage), thus obtaining a light of high intensity from a reasonably low wattage consumption. This is highly important to the amateur who is forced to keep his lighting-equipment within the limits which the house-wiring will safely feed.

Thus, by using a 100-volt bulb on a 110-volt line, the amateur obtains illumination equivalent, in intensity, to that which could ordinarily be had only by overloading the average house wiring. The set of three Number 5's, with an approximate consumption of 1500 watts, gives an illumination which would be given by 110-volt bulbs, only at a consumption of approximately 2500 watts. It is true that the life of the bulb is somewhat shortened; but to compensate this we have the current consumption cut down to almost fifty per cent., we eliminate at least two sets of equipment, and we make the equipment more compact, more easily portable, and much lighter. Finally, although almost any ordinary residence lines will safely carry a load of 1500 watts, it is *not* safe to plug in 2500 watts on such lines; 20-ampere fuses should be used for the 1500-watt load and 30-ampere fuses for the 2500-watt.

There is some difference of opinion as to the actual length of the life of the 500-watt, 100-volt bulb operated at a pressure of 110 volts. (The normal life of the T20 series is 50 hours.) Taking an extreme view—suppose that these bulbs have a life of only ten hours. Let us see just what that means.

You will expose approximately 1,600 feet of sixteen-millimeter film in one hour, or 16,000 feet in ten hours. However, allowing 50 per cent. of the light-time for N.G.'s, start, stop, and so forth, a ten-hour bulb should cover the exposure of 8,000 feet of film, or eighty one-hundred-foot spools. These eighty rolls will cost approximately $400. The bulb will cost $3 for renewal.

Using this most effective form of incandescent illumination, your replacement cost should be less than two per cent. of the film-cost! Naturally, rehearsal, set-up, focusing, and all preliminary work is done under low power. In fact, the writer uses a single reflector fitted with a 500-watt, 115-volt, 800-hour flood-light bulb for these purposes. This bulb gives 8,200 initial lumens at normal pressure, against the 12,300 initial lumens of the T20 at normal pressure. Under the stated operating conditions, the photographic bulbs will give at least 20,000 initial lumens! For the sake of comparison it may be said that the T20, 1000-watt bulb gives only 26,800 initial lumens. At an actual current consumption of approximately 625 watts, the T20, 500-watt bulb gives almost four-fifths the amount of light of the 1000-watt operated at 1000 watts' consumption.

The whole story is that efficiency is gained, and incandescent lighting made practical for either panchromatic or ordinary film, with a replacement cost, figuring upon the constant use of three lamps, not exceeding one-tenth of one cent per foot of film! The operating-expense will be about one cent for each 100-foot roll requiring four minutes' exposure, basing the computation upon electricity at ten cents per kilowatt hour. The total cost of the light for exposing a five-dollar roll of film will not, under any circumstances, exceed fifteen cents! That estimate is based upon replacement and operation, upon a ten-cent electric rate which is high, and upon a bulb life of only ten hours. In actual practice the cost will probably not exceed ten cents, or two per cent. of the film cost.

For those amateurs who prefer incandescent illumination, this equipment can be recommended fully.

LOW LIGHT-EFFECT HERBERT C. MC KAY

MOTION-PICTURE SECTION

The Use of Artificial Light

AMATEUR motion-pictures made by the use of artificial light are no longer novelties. The artificial light is a recognised part of each amateur's equipment; but recently the question of arc-light *versus* incandescent has led to renewed interest in this work.

We shall first consider the arc. The arc-light is in its essentials the two terminals of an electric circuit, tipped with carbon and ignited by bringing them into contact. The "short circuit", together with the resistance of the imperfect contact, gives rise to intense heat and to consequent brilliant light. In practice there are other things to be considered, such as the resistance which regulates the current so that just enough is utilised to give the proper voltage to obtain the most efficient lighting-effect. However, these points are taken care of in the manufacture of the lamp.

The arc gives an intensely actinic, blue-white flame, which in the better models closely approximates one-thousand candlepower per ampere consumed. This may vary ten or fifteen per cent., but hardly more. This is considerably more candlepower than the incandescent lamp will give. Moreover, the greater proportion of the arc-light lies in those wave-bands which are powerful photographically. Much of the procedure with arcs is the same as with daylight. The exposure is calculated with a photometric meter just as in the case of outdoor work.

The photographic efficiency of the arc depends to a great extent upon the carbons used. As the light is produced by the combustion of refractory material, the nature of that material will alter the color of the flame produced. The carbon-arc is a peculiar blue; but the "white flame" carbon gives a flame which closely resembles a magnesium flame. The different carbons are made by forming the actual carbon-rod with the center hollow. This hollow is filled with a core of some special compound which gives the characteristic color to the photo-white flame-carbon. Recently, the manufacturers of carbons have introduced special carbons which are "filtered". That is, they give wave-lengths of certain limited frequency. Many of these bands are in the ultra-violet. Of course, the natural frequency of the carbon itself is added. These ultra-violet carbons are made for therapeutic purposes; but they open up a wide field of experiment for the amateur, particularly if he can obtain a quartz lens to fit his camera.

The arc was the only really practical light-source for the amateur kinematographer until the introduction of the panchromatic emulsion of high speed. Although it has some disadvantages, these were, to a great extent, overcome by manufacturers who put out small, light-weight and attractive arc-lamps for amateur use.

Not long ago, 16-millimeter film was introduced which had a speed of approximately the same as the ordinary emulsion. This makes possible the use of incandescent lights. The high-power incandescent light is easy to obtain and easy to handle; but its light, is highly yellow, even in the case of the gas-filled and blue-bulb types. This meant an extended exposure, or the use of a prohibitive amount of current. With the introduction of the panchromatic film, sensitive to the entire spectrum, all the light of the incandescent may be utilised so that from 1500 to 2500 watts' consumption is ample for all average amateur kinematography using the F/2 lens or for making small groups and close-ups with the F/8.5 lens. In comparing lamps, remember that volts times amperes equals watts. The ten-ampere arc uses 1100 watts. For comparison, the usual electric pressing iron uses from 440 to 660 watts.

The incandescent lamp has undeniable advantages despite its lower efficiency in actinic power per watt consumption. Not the least attractive of these is the fact that this is a familiar form of illumination. It is clean; there is no open flame; there are no exposed terminals with their chance of electrical shock; and the bulb, once lighted, will burn until the current is turned off. In connection with panchromatic film, the incandescent gives beautiful photographic results. In fact, this is true to such an extent that the large studios are seriously experimenting with incandescent illumination.

The final choice depends upon personal choice. The more advanced amateur or the veteran will probably retain the arc with its intense power, because he is familiar with it. The student will probably use the arc, for it is entirely "flexible" and may be used to produce any desired lighting-effect; but the casual amateur, the one who wants ready-to-use, "foolproof" apparatus, which is the easiest to use, will no doubt turn to the incandescent.

The Photo-Era Film Review

WE have three unusually fine films in the list this month, all three of which are distributed by Bell & Howell. Each is 100 feet in length. They may be obtained from any Bell & Howell (Filmo) dealer.

SOME ROCKY MOUNTAIN WILD FOLK.—This reel shows us some of the more attractive features of the Rockies. First, we see a pack-train winding down a path in the foothills. It is a scene to give us all the *Wanderlust*. We then see a herd of deer feeding, which changes to another scene in which they are running down the hillside. Again the scene changes, and we see a burly bear making his meal. The next scene gives relief in the form of a close-up of a porcupine being fed from the hand of a ranger. This is followed by an angle shot of the same scene. Next is a rare shot of some antelope. A close-up then shows us a very good picture of these curious members of the deer family. Following this, we see a herd of bison feeding in a setting which we feel is almost too perfect dramatically to be true. The close-up of this shot is made with the binocular mask, an effective treatment. Again we see a very unusual scene—that of beavers at work. A close-up is cut into this scene. After the return to the full shot, we find a badger by the side of a stream. He is suspicious, but finally returns to his industrious digging in the mud. Leaving the smaller animals, we find a herd of elk in the snow, which is followed by a semi close-up. The reel ends with two beautiful angle shots of a coyote alone in the desert.

The subject-matter of this reel is sufficient to earn our hearty endorsement; but when the beauty of the settings is added, the reel becomes truly a masterpiece of kinematography.

WILD FLOWERS OF THE YOSEMITE (a Pillsbury film).—The only criticism offered of this reel is that the title is misleading. Only two varieties of flowers are shown. Otherwise, the reel is one which deserves a place near the top in the list of flower-films.

The opening shot is one of a field of California poppies waving in the breeze. This is beautiful, but perhaps the poorest scene in the film. The next, which shows us three girls picking the beautiful blossoms, is far more attractive. The third scene introduces the real nature of the film. Here we see a group of ten poppy blossoms, or rather buds. Before our eyes these flowers open to the fullest extent and then close again. This is a masterpiece of time-condensation, as the

speed is slow enough to show the motion distinctly, but rapid enough to avoid monotony. The next scene is a similar one, but larger, showing three buds.

The scene changes to a row of six bottles five of which contain various percentages of bootleg liquor, from 5 per cent. to 100 per cent. The sixth bottle contains pure water. Each bottle holds a small cluster of buds. We see them open in all their beauty. Then the 100 per cent. bottle shows the nature of its contents as the blossoms droop. Almost like a row of dominoes, the flowers droop in the various bottles, until five hold drooping stems, as the flowers in the sixth bottle close. Again we see these lone flowers unfolding in all their glory, as their companions hang dead. Although perhaps not intended as a temperance lecture, it is one of the most convincing the writer ever encountered. From tragedy we pass to a wonderfully beautiful view of the Yosemite, with wild parnsip in the foreground. We then switch to a short close-up of the parsnip, and the reel ends with a shot of saddle-horses feeding among the wild parsnip.

The reel is one without which no library can be said to be complete.

THE GRUNION, THE MYSTERY FISH (a Tolhurst film).—Tolhurst has done for zoölogy what Pillsbury has for botany. In this film we see a group of fishermen seining in the surf. Then we see two of the tiny fish, hardly larger than one's finger, shown in close-up. We see the sand of the beach, and a hand with an instrument which closely resembles a microscopist's section-lifter is used to spade up the sand, revealing the tiny, pearly globules, about the size of a pinhead, which are the eggs of the Grunion.

We then see the eggs magnified to about the size of a basketball. Next we see these eggs hatching, and then a jar of baby fish. One of these midgets is taken up into a pipette, and we see the caricature of a fish with a huge food-bag below it, full-screen size. Following this we see microscopic views of this food-bag, with the blood corpuscles flowing among the oil droplets upon which the baby feeds. The blood circulation is shown in various degrees of magnification. Finally, we see the circulation of the blood in the delicate tail membrane. We then see different-sized views of the heart in action; then again we see the embryo in the egg, and, finally, one of the eggs mounted upon a pinhead.

To prevent misunderstanding, we wish to state that this is not an animated diagram, but actual photographs in every shot. It is one of the most marvelous films ever offered for the amateur's collection.

Opportunities for the Amateur

THE old order in the "movies" is rapidly breaking up. Of course, this statement will be greeted with loud cries of "Nonsense!" However, there are indications, slight in themselves, which point to a change in the professional world which is of vital importance to the amateur kinematographer.

When the writer left active work in the Los Angeles studios, the cameramen were drawing salaries ranging from one hundred and fifty to two hundred and fifty dollars per week—and they made *pictures*. When it is considered that they made use of specialised knowledge, and supplied their own cameras—representing an investment of from two to five thousand dollars—such salaries were not exorbitant. However, this was "pin-money" compared with stars' salaries. The recent retrenchment policy of the producers received wide publicity, but its direct effect upon the camera-industry was not made so apparent.

One of the well-known old-timers, just returned from "the Coast", was talking to the writer recently, and told of deplorable conditions now prevalent. Master cameramen who have received two and three hundred dollars a week in their time now work for less than one hundred, while a lot of the work is being done by a "bunch of kids" who work for fifty and even less.

Is this only an economic incident? It is far more significant. The quality of the camera-work must inevitably drop; and when it does, the present picture system will start on its last long journey to obscurity. Critics already say that American films cannot compete with German films on the grounds of photography. Perhaps not. The German films are, to say the least, beautifully photographed. If foreign films gain the ascendancy in this country, distribution will be opened and the independent film will have a chance.

That last remark needs to be explained. The time is not long past when a film, even if the finest ever produced, had no chance of reaching the screens of the leading theaters unless placed under the control of one of the big companies. The independent producer was out of the running. Yet, if ever the immortal photoplay is produced, it will almost beyond doubt be produced by an independent producer, an *amateur!* Only he has the originality, the freedom from professional prejudice, which will enable him to get away from smothering professional *tradition*, that incubus which kills so many fine productions in birth.

The star is glorified, the director is canonised; but, after all, who makes or breaks any photodrama? The cameraman makes the *picture*. In spite of all that may be said, the motion-picture depends after all upon photography; and the finest acting, the most superb direction, the most gorgeous sets all go for nothing unless the cameraman catches the intangible atmosphere of the scene and records it indelibly upon celluloid. And—you cannot hire a master-artist for an office-boy's salary!

Exposure-Meters for 16-mm. Cameras

THE Dremophot produced by the Drem Products Corporation for the Bell & Howell Filmo reads directly for that camera when operated at its normal speed of 16 frames per second, which gives an exposure-time of 1/25 second. The Victor camera, model three, also belongs to this speed-class and, of course, the Dremophot reads directly for it also.

The new model Cinophot which was described in the April issue reads directly for the speed of 1/32 second and is, therefore, now a direct-reading meter for all models of the Ciné-Kodak, the 16-mm. Devry, and other cameras with a 180-degree shutter.

The Cinophot, of course, is suitable for use with all professional and amateur cameras as well as for time-exposures of all durations.

These meters have one remarkable patented feature. The exact instant of exposure-determination is positive and beyond doubt. There is no question about the instant when the "N" of the Dremophot or the "1/32" of the Cinophot emerges from darkness. There is no matching or blending of color or tint-fields. Dr. Mayer has designed the size and density of the field in such a manner that optical accommodation of the human eye is taken care of effectively.

My own experiments have demonstrated that people of various ages, visions, and photographic experience obtain the same readings with these meters within a fraction of a stop-value. They are truly automatic and instant photometers which will always maintain their obvious advantages, according to the opinion of successful amateur and professional kinematographers.

THE WRECKED WATER-TOWER
WILLIAM H. ZERBE
ELEVENTH INTERNATIONAL SALON
CAMERA PICTORIALISTS OF LOS ANGELES